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ABSTRACT

Written primarily for teachers, this sourcebook explains the characteristics and needs of young adolescents and examines the kinds of curricula and teaching most appropriate for them. Chapter 1 provides definitions, a history of the junior high school, and a discussion of the characteristics of education in the middle years. Chapter 2 describes the physical, intellectual, moral, emotional, and social aspects of the development of young adolescents. Chapter 3 focuses on the needs of students to which middle years education should respond. Chapter 4 covers topics related to teacher performance, including teacher qualities, facilitating student transition from concrete to formal operational thought, individual differences, teacher response to student needs, teaching strategies, organizing active learning, and combining child- and subject-centered approaches to learning. The discussion of the middle years program in chapter 5 points out ways the program can be related to student needs, offers rationales for teaching general studies and learning skills, and suggests ways teachers can promote students' personal growth. Chapters 6 and 7 respectively examine factors relating to student evaluation and discipline, two major concerns of teachers and parents of children in their middle years. In conclusion, chapter 8 deals with the subject of organizing and implementing a successful middle years program. An extensive bibliography is included. (RH)

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some suggestions for the education of early adolescents

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MIDDLE YEARS SOURCEBOOK:

SOME SUGGESTIONS FOR THE EDUCATION OF EARLY ADOLESCENTS

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PROVINCE OF MANITOBA
DEPARTMENT OF EDUCATION, 1984

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PREFACE

This book is intended to serve as a resource and a guide for anyone interested in middle years education. Although written primarily for teachers, it is not intended solely for them. Parents, school trustees, and, indeed, anyone interested in education will, it is hoped, find it of interest.

The topics dealt with in this book were identified by the Middle Years Program Review Committee, in part on the basis of a survey of teachers across the province. They are described in the chapter headings and subheadings and do not need to be introduced here.

Middle years education first became a subject of discussion in Manitoba in the mid 1970s thanks to the work of successive middle years program review committees and an enthusiastic Middle Years Association. This book is, in fact, an offshoot of this wave of interest, resulting from a recommendation made by the Middle Years Program Review Committee that such a book would be helpful to teachers and others.

It is well known that middle years education is an attempt to change the conventional junior high school by making it more student-oriented. Some commentators have argued that middle years education is an attempt to return to the early ideals of the junior high school movement. Be that as it may, advocates of middle years education do try to base their philosophy upon a close analysis of the nature and needs of early adolescent youngsters. These youngsters are the central concern of this book. The fundamental educational question must be what happens to children in classrooms. All else is incidental.

Thus, this book explains the characteristics and needs of early adolescent youngsters and examines the kinds of curricula and teaching that are most appropriate for them. It also addresses the questions of discipline and evaluation, both of which appear time and again as major concerns of teachers and parents of middle years children. Recently we have begun to understand more clearly than ever before that many earlier educational reforms have failed because insufficient attention was paid to the nuts and bolts of implementation. In the past, implementation was seen primarily as a matter of issuing directives and guidelines. This book, therefore, also deals with the subject of organizing and implementing a successful middle years program.

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Like most educational movements, middle years education runs the risk of simply becoming another bandwagon: entertaining and colourful as it passes by, but quickly receding into the distance, leaving no lasting impression behind it. Middle years advocates, in their enthusiasm for their cause, have sometimes overstated their case. I have tried to avoid this, in the conviction that middle years education is worthwhile and in the hope that it will have an effect upon what happens in classrooms.

Ken Osborne

February, 1984

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Fleming School, Brandon School Division No. 40
Riverheights School, Brandon School Division No. 40

1. INTRODUCTION

Since this sourcebook deals with middle years education, it may be best to begin by defining terms. Two, in particular, stand out: middle school and middle years.

WHAT IS A MIDDLE SCHOOL?

The term middle school, in the United States, usually refers to a particular building, or perhaps a particular area of a building, and describes a school with a distinctive arrangement of grade levels and, ideally, with a distinctive philosophy and set of practices. The grades most recommended include grades five to eight. Writers discussing the middle school usually argue that because many grade five and six students are experiencing the beginnings of puberty, they are best thought of as belonging to the stage of early adolescence rather than that of childhood. The argument for including grade nine in the high school most often seems to be organizational rather than developmental, because grade nine is the first year of the collage preparatory course in the United States and so best belongs with grades ten to twelve.

However, although grade arrangements vary in detail, the middle school is most often seen as a separate unit with a distinct philosophy and a distinct set of practices. W. M. Alexander, in The Emergent Middle School, defines it as "a school providing a program planned for a range of older children, preadolescents, and early adolescents that builds upon the elementary school program for earlier childhood and in turn is built upon the high school's program for adolescence."[1]

R. J. McCarthy, in The Ungraded Middle School, says: "The middle school is that educational institution encompassing children ordinarily included in grades six, seven and eight, that is specifically designed in its operations to meet the needs of young adolescents. Some schools which have grades five through eight are also called middle schools."[2]

It should be reiterated that these definitions of the middle schools are characteristic of the United States. (Other educational systems use the term differently. The People's Republic of China, for example, describes everything between elementary school and post-secondary education as middle school. In the United Kingdom, the term usually describes a school or a program for youngsters between eight and thirteen years of age, the stage of "middle childhood.")[3] Much of the literature about middle schools being

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used in Canada is, in fact, American in origin and application; it should not necessarily lead to an automatic application to Canadian conditions. Canadian educators need to be selective about what elements of middle school thinking they wish to adopt. The term middle school means different things in different jurisdictions and people using the relevant literature need to know exactly which meaning they are dealing with.

WHAT ARE THE MIDDLE YEARS?

For all these reasons, it makes sense in a Canadian context to speak of middle years. This is not to say that middle years cannot or should not be established, but, given the realities of student enrolments, school size and limited budgets, we are unlikely to see many of them.

The term middle years, or middle years education, describes a particular period in youngsters' lives, usually that between approximately (the qualifier is important) ten or eleven and fourteen or fifteen. Many psychologists see this period as a distinctive, even unique, stage of development. It is most often described as "early adolescence," although some also call it "transesence," to indicate the stage of transition from childhood to adolescence proper.

WHAT IS MIDDLE YEARS EDUCATION?

Middle years education is that education which is designed specifically for middle years students, that is, for students in the early adolescent years (approximately ten or eleven to fourteen or fifteen years of age). This education may or may not take place in a special building, but it is best seen as a philosophy rather than as a particular organizational form or structure. The philosophy emphasizes that what is important in teaching middle years students is the interaction that occurs between teachers and students and among students themselves, and argues that this does not depend upon a particular arrangement of grades. The philosophy is concerned, however, that our present practices do not provide enough continuity from grade six to grade seven or from grade nine to grade ten, that is, from elementary to junior high and from junior high to senior high. More important, this approach is concerned that much of what is currently done in the junior high school is not appropriate for youngsters in the early adolescent years.

Implicitly, and indeed often explicitly, to study middle years education is to suggest that far-reaching changes are needed in the junior high school. Professionals and non-professionals alike ask why such changes should be necessary. Implicit in this question is the concern that middle years education may prove to be simply another fad, another of the many bandwagons that have been paraded noisily through the schools over the years.

One way to answer the sceptics is, of course, to explain what middle years education is all about, as this sourcebook attempts to do. Another way is

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to examine the junior high school itself, on the premise that to understand clearly one's current situation is to go a long way towards improving it.

It is not, after all, self-evident that we need a special school providing a special curriculum for grades seven to nine. Many school systems around the world, including those of some Canadian provinces, do not have junior high schools. Junior high schools have become entrenched in Manitoba, however. Although a Department of Education study, undertaken in 1977, identified only forty-three physically distinct junior high schools in the province, the concept that junior high, that is, grades seven to nine, should form a separate category, is alive and well. This being the case, it is a useful exercise in clarification to see how it began. As the old saw has it, it is difficult to know where you are going if you do not know where you are.

HISTORY OF THE JUNIOR HIGH SCHOOL

The first junior high school in Manitoba was established by the Winnipeg School Board in 1918 and it followed the United States example, in large part because the Winnipeg board faced many of the same problems facing city school systems in the United States.[4] One problem was how to provide appropriate secondary education for large numbers of students. Numbers were increasing because in 1916 the provincial government had made school attendance compulsory and because more students who did not belong to what was thought of as the traditional academic elite were tending to stay on into the senior grades. Another was how to reduce the dropout rate and the number of students held back to repeat a grade (both phenomena being seen as the result of inappropriate curricula). A third problem was how to make the overall operation of the school system more efficient and so provide better value for money spent. A fourth was how to provide an education appropriate to what the psychologists of the day were increasingly describing as the needs and characteristics of adolescence. One common thread running through all four of these concerns was the general desire on the part of many educators to improve (as they saw it) the quality of education. As surprising as it may seem today, establishing the junior high school was seen as the solution to all these problems.

To try to put a date on the first junior high school in the United States is to become immersed in the fogs of antiquity. It is generally agreed that the first junior high schools were established around 1910 and that by the early 1920s they had become widely accepted. Indeed, there is considerable evidence that junior high schools had become a fad, an innovation which was adopted in name but not in substance.[5] Certainly, the idea of the junior high school generated high hopes. It became a weapon in the struggle between modernists and traditionalists. Charles Johnson, of the University of Illinois, writing in the early 1920s noted: "It is the name we have come to associate with new ideas of promotion, new methods of preventing elimination, new devices for moving selected groups. Thru [sic] subject-matter at different rates, higher compulsory school age, new and thoro [sic] analyses (social, economic, psychological) of pupil populations, enricht [sic] courses, varied and partially differentiated curricular offerings,

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scientifically directed study practice (and) new schemes for all sorts of educational guidance."[6] However, more important than when or where the idea of the junior high school began is the question of why it attracted the support that it did. Although different school systems had their own particular reasons for supporting the idea, they were all responding to changes in society at large.

The period from about 1890 to 1920 was one of particularly rapid and far-reaching change, associated with the combined effects of industrialization, urbanization and large-scale immigration. In our current concern with the future and future shock, we too easily forget that earlier generations also had to contend with unforeseen and accelerating changes. Indeed, one could argue that today we are at least accustomed to the notion of permanent change whereas, in the late nineteenth century, change itself was a slower and, therefore, less well-understood phenomenon. Historians R. Cook and R. C. Brown have recently described Canada between 1896 and 1921 as "a nation transformed." They write: "The effect of advancing industrial and urban growth on the character of Canada was profound. Indeed, the Laurier-Borden years should be seen as the history of a people attempting to bring its institutions into conformity with the demands of a new, unfamiliar kind of society."[7] This is not the place to describe these changes in any detail, but it should be emphasized that they had far-reaching effects upon children, schools and families.

For example, industrial and urban growth broke the traditional connection between home and work. The parents' workplace became remote from and unknown to their children. At the same time, reformers introduced child-protection legislation to keep children out of factories, and it became increasingly difficult for children to find work. Consequently, there was an increasing number of and problem with street children, those children who were not in schools but who were also not doing anything "useful." Such children, it was feared, would become easy victims of the corrupting influences of the city. They were all too likely to succumb to immorality and criminality.

At the same time, these children had to be taught the values and attitudes necessary for the successful working of the new industrial and urban social order. They had to learn such good work habits as punctuality, diligence, sobriety and obedience. They also had to acquire the values that underlay such habits, particularly deference, respect and reliability. Such qualities would become especially important when work in the new industrial factories lost its intrinsic satisfaction as traditional skills were downgraded and superseded by machines. Hence, for example, the popularity of military drill in the schools of the 1890s. Drill was valued not so much for its military or physical aspects, but for the values it embodied. As the Winnipeg School Board expressed it, drill is "of benefit to the boys -- training them to habits of attention and obedience to the general school commands."[8]

Urban and industrial growth was accompanied by large-scale immigration. The dominant groups agonized long and loud over the implications of the arrival

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of non-English-speaking immigrants. Clifford Sifton, the Minister of the Interior, might welcome the "stalwart peasants in their sheepskin coats" and prefer them to British immigrants who, in his view, too often would not work, preferring instead, to cause trouble, but others were not so certain. Outside Quebec, many people speculated on the future of English-speaking Canada, or even on whether it had a future. They all agreed that the immigrants had to be Canadianized. If the parents proved to be too set in their ways, then the children at least would be malleable. Not for the last time, the school was seen as crucial. As Vincent Massey put it in 1926: "To our schools we must look for the good Canadian."[9] For the schools to do this successfully, of course, it was necessary to get all youngsters to attend them, so that they could be made good Canadians and so that they could be saved from the corrupting influences of society.

The problem of immigrants was not the only one. Many people were generally alarmed by the effect of industrialism -- more specifically by the effect of largely unregulated industrial capitalism -- and by the rapid growth of towns and cities. The traditional values, those of a largely rural society, seemed to be on the verge of extinction. The early years of this century saw in Canada, as elsewhere, considerable interest in socialism of all kinds as a possible solution to society's problems. Most people remained unconvinced by socialism itself but were attracted by less radical alternatives. One of these alternatives, the co-operative movement, began in this period, and, in its early years, at least, it was seen by its supporters not simply as another form of retailing, but as a way to transform society. The churches also became interested and involved in social reform; ministers and lay people preached and practised the "social" gospel.

Out of all this came a strong concern for children. They were, after all, both the future for society and its most likely victims. In the expanding towns and cities (though not on the farm), children had no useful economic category -- youth -- was beginning to emerge. Youth's main role seemed to be to wait for the coming of adulthood with its rights and responsibilities. The problem was to see that this waiting was time well spent. Thus, in the years between 1890 and 1914 a wave of attention was directed towards the young. These were the years that saw the establishment of children's aid societies, of the Boy Scouts and similar organizations, of the playground movement, of the juvenile justice system. All were devoted to rescuing the young from the evil influences of society from what was seen as the neglect of their parents, and to subjecting them to wholesome and desirable training.

Perhaps most important as far as the schools were concerned, this period was also the age of child study; academics and professionals began to provide what they saw as a scientific basis for the widespread concern for children. In 1904 an American university psychologist, G. Stanley Hall, published his two-volume work, Adolescence: Its Psychology and Its Relation to Authors, Society, Sex, Crime, Religion and Education. As Hall's ideas quickly became popular in magazines, lectures and teachers' conferences, the study of adolescence was firmly established.

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In brief, Hall saw adolescence as a unique and distinctive stage of human development and one which youngsters had to experience to the full. He believed that the development of the individual recapitulated the development of the human species. According to Hall's explanation, adolescence was a re-living of the hunter-warrior stage of human history. Hall argued that any attempt to bypass or to frustrate this stage must inevitably be harmful. The challenge was to refrain from blocking or frustrating the turbulance of youth, because turbulence was a necessary experience, and to harness it for the personal and social growth of the child. At the same time, Hall popularized the notion of adolescence as a time of stress and turmoil.

In view of all this, one can see why proponents of the junior high school were attracted to the teachings of the psychologists studying adolescence. If adolescence were, indeed, a distinctive developmental stage, then presumably it needed a distinctive education, above all in a society where fundamental social changes were taking place.

Hall's and others' study of adolescence, however, should be seen precisely in the context of this wider social transformation. In the words of historians J. and N. Demos, "The concept of adolescence, as generally understood and applied, did not exist before the last two decades of the nineteenth century. One could almost call it an invention of that period."[10] This is an arresting argument: rather than a biological fact, adolescence appears as a social invention. As will be suggested below, this argument has far-reaching implications for educational policy.

It seems, then, that the junior high school began under favourable auspices. It was born of a wish to provide a more appropriate and effective education for youngsters of a particular age and to give them an education more suited to their needs and developmental characteristics. As many commentators have noted, the ideals and aspirations of the first supporters of the junior high were remarkably similar to those of today's middle years advocates. Donald Eichhorn has described middle years education as "a seventy-year-old concept rededicated to its basic principles."[11] J. M. Glass noted in 1923: "A probationary period before the vital question of educational or vocational choice is finally determined. Exploration of individual differenes, the revelation of educational and vocational opportunities adaptable to individual differences, guidance of educational or vocational choice, equilization of opportunities, the adaptation of educational offerings to ascertained individual needs rather than the conforming of all pupils to one educational pattern. . . ."[12]

WHY THE CHANGE TO THE JUNIOR HIGH?

What, then, went wrong? Why did the junior high not become the kind of school that was originally envisaged? The very name indicates part of the reason: it was quickly captured by the high school so that it became precisely a junior high school. An American writer in 1920 voiced suspicion of the high schools: "Having modeled, consciously or unconsciously, the high school after the college, they are engaged, whenever they

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have the shaping of the intermediate school in their control, in making it in reality a junior high school."[13] Worth noting here is the reference to the possibility of an "intermediate" school. Shakespeare asked, "What's in a name?" In this case the answer must be, "A great deal." Once call something a junior high school, and its structure is determined. This matter of naming, however, is only a part of a much bigger problem. The social reformers and child enthusiasts described above were ambivalent. Their concern for children and their enthusiasm for education should not blind us to the fact that they had larger concerns. They were, for the most part, middle class people determined to rescue working class children. Nothing has changed; social reformers continue to interpret cultural and class differences as qualitative inferiorities, as deprivations. In trying to do something for children, they were also doing something to them.

Thus, these middle-class reformers did not resist the forces that, in fact, were to determine the shape of the junior high school; the major force was the desire for social efficiency which swept the United States and affected English-speaking Canada in the years around 1910. In the words of American clergyman H. Martyn Hart, "The people have changed but not the system; it has grown antiquated and will not meet our present needs; it has indeed become a positive detriment and is producing a type of character which is not fit to meet virtuously the temptations and the exigencies of modern life. The crime which stalks almost unblushingly through the land; the want of responsibility which defames our social honor; the appalling frequency of divorce; the utter lack of self-control; the abundant use of illicit means to gain political positions; are all traceable to its one great and crying defect — inefficiency."[14] In this quest for efficiency, the school system was assigned an important role. First, however, the system itself had to be made more efficient.

Initially, the whole question of re-organizing the school system began with criticism from universities about freshmen and the nature of their high school education. Historically, the initial impetus for the formation of a separate junior high school was provided by educators' attempt to rationalize the system to meet the criticisms from universities.[15]

These criticisms from universities must, however, be seen in their full context. Scholars like Eliot of Harvard University, Butler of Columbia, Harper of Chicago and Draper of Illinois did more than represent the demands from their universities. They and their allies were "members of a movement composed mostly of business and professional elites, including university people and the new school managers."[16] They planned to reorganize urban education on more rational lines. In particular, this meant putting education under the control of trained experts (superintendents and small centralized school boards rather than the ward system), rationalizing and making more efficient the operation and administration of the schools, and giving more emphasis to vocational and citizenship education.

Understandably, the educational views of the members of this movement were part of a larger social philosophy, an important aspect of which was their espousal of meritocracy. Eliot spoke of "four layers in civilized society

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which are indispensable, and so far as we can see, eternal".[17] These layers included: a small leading class; skilled workers and technicians; commercial groups; and, the labouring class. Each of these layers deserved its own proper schooling, designed also to provide for mobility among them. At the same time, this meritocratic position held was suspicious of the urban masses, especially when they were non-northern European. In 1909 the noted American educationist, Ellwood Cubberley, stated that immigrants from south-eastern Europe were "illiterate, docile, often lacking in initiative, and almost wholly without the Anglo-Saxon conception of righteousness, liberty, law, order, public decency, and government."[18] This is not the place for an examination of the socio-political philosophy of the "administrative progressives"; the point here is to show that when university presidents and their allies called for school re-organization, they were doing so within a whole network of assumptions about the desirable shape of society.

These assumptions have led some recent historians to speak of the "corporate state" that emerged in the United States in the early twentieth century.[19] Joel Spring has located the junior high school squarely within this corporate ideal. He says: "Junior high schools were designed to make educational planning and guidance possible at an early age. The original purpose of the junior high school was to differentiate students into separate courses of study according to abilities and vocational goals. It was hoped that with proper guidance the student would choose a vocation in the junior high school directly to the occupations."[20] He also says that "the main argument for the junior high school was that it facilitated the differentiation and guidance of students."[21] The essential thrust of Spring's argument is sound, but the picture is more complicated than he suggests. It is a fruitless historical quibble to argue about which was the "original" purpose or the "main" argument; however, planning, guidance and differentiation were seen not so much as ends in themselves but as means. The end was efficiency.

The "administrative progressives" pointed to the unnecessary length, repetitions and wasted opportunities of the public school program. In the early years of the century, increasing attention was given to the dropout rate. Efficiency meant economizing on time, providing for better articulation between elementary, secondary and college education, providing for vocational education and keeping more students in school. The emphasis came to be on differentiation and guidance. All this, of course, was done in the wider context of concern for social efficiency and scientific management. R. Callahan comments that "beginning early in 1911 hardly a month passed for two years in which articles complaining about the schools were not published either in the popular or in the professional journals."[22]

Many of these concerns, then as now, spilled over into Canada, for obvious geographical reasons, and because at least some influential Canadians shared a similar outlook. In addition, educational leaders in English-speaking Canada, such as Superintendent Daniel McIntyre of Winnipeg, kept a sensitive ear open to developments in the United States.

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The 1890s and early 1900s saw in the United States an explosion of prestigious committees charged to examine one or another aspect of the school system. Out of the deliberations of these committees came a general acceptance of a six-year high school, in which the first three years would be preparatory, or junior high. The general consensus was that the advantages of the junior high were:

- Students could be taught by specialist teachers;
- Students in grades seven and eight would have contact with a variety of teachers;
- Science could be introduced earlier with the use of laboratories;
- Manual training could be more easily provided;
- Modern languages could be begun earlier;
- Transition from elementary to high school would be smoother;
- More students would stay at home until grade nine;
- Schools would be more "self-consistent" as they are in Europe;
- There would be more time for preparation for college;
- It would be possible to teach some of the newer subjects.[23]

These were also the views of Superintendent Daniel McIntyre when he reported to the Winnipeg School Board in 1918. He and others saw the junior high more as an efficient introduction to senior high, than as an extension of the elementary grades.

To these largely administrative and curricular concerns was added, as the idea of adolescence became more widely known, the argument that the junior high was needed because of the special needs and characteristics of adolescent youngsters. In 1924, Calvin Davis, of the University of Michigan, described the current junior high:

- It was a separate organization of at least two of grades seven, eight and nine;
- It had a separate building and staff;
- It had a program of studies that was at least partially departmentalized and that differed from the equivalent grades in a senior elementary school;
- It had educational and vocational guidance and some student electives;
- Its teaching methods differed from those of the elementary and the senior high;
- It had a student activity program that catered to adolescents' needs;
- It recognized individual student differences.[24]

In fact, when the first junior high supporters spoke of allowing students to explore and discover, of giving them a range of options, of allowing for diversity, of providing for individual student differences — in short, of "differentiation" -- they were really speaking of "tracking" or "streaming." As a result, they stressed the importance of guidance in the junior high. Guidance was intended to determine students' aptitudes. Differentiation, together with subject specialization, was intended to reduce the dropout rate by providing a variety of programs and to prepare students more adequately for high school or work. Vocational, practical arts and academic

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programs were there not to allow students to sample as wide a range of activities as possible, but to put them in streams which would either prepare them for a job or for high school. This meant, of course, that the early 1900s, as Joel Spring has noted, saw the growth not only of the junior high school and the "discovery" of adolescence, but also of the vocational guidance movement.[25] Needless to say, guidance was closely connected with the drive for efficiency -- in this case through the optional use of human resources. This was more than a case of simply serving the industrial machine. Placing people in jobs for which they were suited would clearly increase human happiness and lessen frustration. Careful guidance would also reform the industrial system by steering youngsters away from morally damaging jobs. Frank Parsons, one of the champions of vocational guidance, saw it as a step towards "mutualism" and the abolition of conflict and selfishness.

The rhetoric was Utopian. In reality, the junior high school responded to organizational and administrative pressures which reflected the needs and desires of the dominant groups in society.

All this may seem to have taken us a long way from the consideration of contemporary middle years education. But the distance is more apparent than real. One cannot properly understand middle years education without understanding what it is reacting against. Therefore, this historical overview is both useful and necessary. It helps to explain how the junior high school came to assume its present state and so provides some insights for those who wish to change it. It demonstrates also that schools are so embedded in a social context they cannot be reformed without taking that social context into account.

It remains to be explained, however, how middle years education differs from junior high education. A practical difficulty, of course, is that no two junior high schools are alike, so that to describe the "typical" junior high is, strictly speaking, an impossibility. Nonetheless, and with this reservation in mind, a contrast can be made between the characteristics of junior high and middle years education.

WHAT ARE THE CHARACTERISTICS OF MIDDLE YEARS EDUCATION?

The rest of this sourcebook describes the characteristics of schools and programs intended for middle years youngsters. We can begin by looking at a set of questions asked by N. P. Georgiady and L. G. Romano:

- Is continuous progress provided for?
- Is a multi-material approach used?
- Are class schedules flexible?
- Are appropriate social experiences provided for?
- Is there an appropriate program of physical experiences and intramural activities?
- Is team teaching used?

- Is planned gradualism provided for? (This refers to a transition from less to more independence.)
- Are exploratory and enrichment studies provided for?
- Are there adequate and appropriate guidance services?
- Is there provision for independent study?
- Is there provision for basic skill repair and extension?
- Are there activities for creative experiences?
- Is there full provision for evaluation?
- Does the program emphasize community relations?
- Are there adequate provisions for student services?
- Is there sufficient attention to auxiliary staffing?[26]

This list can be usefully compared with that compiled by W. Alexander and P. S. George in which they describe the twelve "essential characteristics" of a good middle school.

- It has a statement of philosophy and school goals that are based on knowledge of the educational needs of boys and girls of middle school age and are used in school program planning and evaluation;
- It has a system for school planning and evaluation which is specifically designed for the middle school level and which involves all concerned in the school community;
- It has a curriculum plan for the middle school population that provides for continuous progress, basic learning skills, use of organized knowledge, personal development activities, and has other curriculum goals as locally determined;
- It has a program of guidance which assures the availability of help for each student from a faculty member well known to the student;
- It has an inter-disciplinary teacher organization which provides for team planning, teaching, and evaluation, and for appropriate inter-disciplinary units;
- It uses methods of student grouping for instruction which facilitate multi-age and other instructional arrangements to maximize continuous progress;
- It uses block scheduling and other time arrangements which facilitate flexible and efficient use of time;
- It makes efficient use of physical facilities to provide a flexible and varied program;
- Its instruction methods use a balanced variety of strategies and techniques to achieve continuous progress of each learner toward appropriate instructional objectives;
- It assigns appropriate roles for the various individuals and groups required for continued and dynamic leadership in the middle school, with a continuing program of staff development and renewal focused on the unique problems of middle school personnel;
- It has a plan for evaluation of student progress and of the school itself to ensure the achievement of the goals of the school;
- It participates with other schools and with community groups in the continuing study of the middle school population and of society as a whole to be responsive to changing needs and conditions of the future.[27]

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Most such lists have much in common, though all have particular variations. A study of the relevant literature and the practices of successful middle years educators reveals a set of features which describes middle years education:

1 A successful middle years school should have an explicit statement of philosophy which is:
- worked out and accepted by the school staff as a whole;
- based on appropriate research and theory;
- sufficiently specific to be a guide to action;
- expressed simply and clearly so as to be easily understood by professionals and non-professionals alike;
- accessible to all and especially to the community.

2 It should provide a smooth transition from elementary to high school with:
- links for teachers between all levels of schooling;
- provision for students to work with younger and older students;

3 It should have a program especially suited to young adolescents. Developers of the program should:
- have a knowledge of students' needs and characteristics at this stage of development;
- have a realization of the wide range of individual differences that exists in this stage;
- place an emphasis upon student growth and development;
- provide a balance among essential knowledge, options and skills;
- provide for the aesthetic and the practical as well as the strictly academic;
- create a balance among intellectual, social and physical development;
- provide for students' interests and explorations (e.g., through mini-options);
- develop an extensive co-curricular program offering something for all students;
- suggest a variety of roles for students;
- break down age-grade segregation;
- emphasize and encourage student initiative and responsibility.

4 Appropriate teaching in middle years schools should:
- blend the cognitive and the affective;
- be characterized by an awareness of the transition from concrete to abstract thought;
- encourage development of students' skills;
- emphasize ideas and problems, not just give inert information;
- encourage student inquiry and involvement;
- allow clear connections with students' ideas and experience;
- allow creativity and inquiry;
- encompass a wide repertoire of teaching techniques.

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5 Specially trained teachers should:
- . be active in a comprehensive in-service and professional development program, planned by teachers themselves;
- . be competent in subject matter;
- . have broad general knowledge;
- . have a thorough knowledge of developmental psychology;
- . be able to relate personally to students;
- . know the techniques of curriculum development;
- . be able to work co-operatively with colleagues;
- . have an interest in and a knowledge of current affairs;
- . be open to innovation.

6 There should be a concern for individual students, including:
- . a system by which each student can relate especially to a particular teacher;
- . a guidance program in which all teachers are involved;
- . individualization of teaching and grading;
- . adequate resource and remedial services.

7 There should be flexible scheduling and staffing, including
- . a system of block and/or modular scheduling;
- . collaborative teaching (or team teaching).

8 There should be close reciprocal links with the community, including:
- . parents;
- . community resources.

This checklist could certainly (and probably indefinitely) be expanded, but it contains the important characteristics of middle years education. To put it at its simplist, the priority for a middle years education is to ensure that students are always at the very centre of the educational process so that their all-round development may be enhanced to the greatest extent.

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2. CHARACTERISTICS OF THE MIDDLE YEARS YOUNGSTER

The fundamental premise of middle years education is that the period of life between approximately ten or eleven years of age and approximately fourteen or fifteen is a unique stage of development which demands special approaches to curriculum and to teaching. It follows, therefore, that teachers of middle years students must have a good working knowledge of the youngsters whom they are teaching. They must know their subjects and their students and also how to establish a solid connection between the two. This chapter of the sourcebook, therefore, outlines the characteristics of middle years youngsters. It takes the position that the most pronounced and most important changes take place in the physical and the cognitive areas of development, and that these changes manifest themselves in social, emotional and moral development. This chapter deals with the physical, the cognitive, the personal and the social in separate sections. It is crucial to remember, however, that they are all interconnecting. In reality, they are truly a seamless web.

The physical changes associated with adolescence and which, indeed, largely define it, are real and universal, although their meaning and effect depend largely on the particular social and cultural context in which they occur. Many psychologists, in fact, have argued that the term adolescence is too loose and that it covers too large a span of development to be useful. They argue for a further division of adolescence into sub-stages. The substantive divisions of adolescence are pre-adolescence, early adolescence, mid-adolescence and late adolescence. Some middle years educators and psychologists have coined the term transescence to describe the middle years, that is, for the years of pre-adolescence and early adolescence. J. J. Mitchell, of the University of Alberta, has divided the middle years into the sub-stages of latency, puberty, and post-puberty. Latency is a period of stability and limited growth, lasting from approximately ten to eleven years in boys and occurring a little earlier in girls. Puberty is, of course, a time of tremendous growth and change, and therefore of instability, occurring generally between twelve and fourteen in boys, and eleven and thirteen in girls, but with plenty of exceptions in both cases. According to Mitchell, girls move into post-puberty at about the age of fifteen, and boys enter it somewhat later.

It should be pointed out that there is a real danger in even suggesting age approximations for the various changes that occur in the middle years. This is, above all, a stage of tremendous individual variation and, although we can talk of averages and norms, the reality is that individual youngsters

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vary tremendously in their development. The problem with thinking of middle years education as belonging to the ten/eleven to fourteen/fifteen age range is that it is not an age but a stage. As J. M. Tanner, perhaps the most thorough student of adolescents' physical development, has noted, "The statement that a boy is fourteen is in most contexts hopelessly vague; all depends morphologically, physiologically and sociologically, on whether he is pre-adolescent, mid-adolescent, or post-adolescence."[1] Indeed, as any junior-high-school teacher knows, students in grades seven, eight and nine display an almost incredible range of physical characteristics. Some of the boys look like young men, with deepening voices, facial hair and large bodies. Some of the girls look like young women, often exaggerated by their careful attention to grooming and appearance, their clothes and hairstyles following the dictates of fashion. Others, both boys and girls, still look like children, physically undeveloped and overshadowed by their earlier-maturing classmates. This central fact of individual variability makes the task of middle years teachers particularly difficult and makes it imperative that they learn something of the psychology of their students. There is no doubt that there is less uniformity among middle years youngsters than there is among youngsters in the elementary or the senior high grades.

Perhaps the best word to describe adolescence generally is transition. It is, above all, the period of transition from childhood to adulthood, from dependence to independence. Transition is, admittedly, a slippery word. We are all in transition, from birth to death, from youth to middle age. Life, indeed, is nothing but transition. Nonetheless, the word applies with particular meaning to the adolescent years. In the case of middle years youngsters, the physical, cognitive and associated changes occur with particular force because adolescents are not used to dealing with change. By early adulthood most of us have acquired enough experience, enough poise, enough self-knowledge to cope more or less satisfactorily with change. For precisely this reason, the quality of experience during these years is of tremendous importance for later development. In the words of P. Blos, a student of adolescence, "The initial stage of adolescence presents the most crucial period of the adolescent period as a whole."[2]

Perhaps the most important psychological fact about adolescence is that it is the time of reaching towards and the attainment of independence and autonomy. The middle years are important because experience during these years lays the foundations for the process of achievement of independence. The achievement of physical strength makes independence theoretically possible. The experience of puberty emphasizes the approach of adulthood, especially in a society as preoccupied with sexuality as is contemporary North America. Growing intellectual power brings about a growing awareness and an increasing ability to deal with the outside world. Both psychological and social forces prompt a move away from parents and towards peers. All of these changes add up to a growing assertiveness and concern for independence on the part of adolescent youngsters. Paradoxically, however, this quest for independence has often prompted teachers to close the opportunities for students. The very desire for independence in junior-high students can be seen by teachers as a discipline problem and schools have tended to impose more restrictions on these students than they do on either elementary

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students or senior-high students. One of the key tasks of middle years education is to reverse this situation and to find ways in which students can put their growing and new-found feelings of independence to good effect.

WHAT ARE THE PHYSICAL CHARACTERISTICS?

> It is interesting to conjecture how the average thirty-year-old would react to being told that at some time during the forthcoming three years he would undergo a radical transformation of physical growth which would drastically alter the formation and size of genitals and all other sexual characteristics: that the skeleton would be significantly redesigned; that dietary habits, rest patterns, and exercise schedules would likewise be revamped; that facial hair and contours would change; that awkwardness of movement would prevail; that sexual interests would drastically modify; that mood swings and body images would be affected; that members of the opposite sex would register interest or disinterest according to how well the entire process took place.[3]

J. J. Mitchell writes, to some extent, with tongue in cheek, but his point is well taken: the physical changes that occur in adolescence are enormous and have a huge effect upon all aspects of youngsters' personalities. When one realizes that these physical changes occur in conjunction with others, especially changes in cognitive development, one begins to see just how difficult the adolescent transition is, especially in contemporary North America where commercial interests are constantly promoting a particular kind of teenage and youth culture with little regard for the welfare of the young people themselves.

There is no doubt that the two most crucial aspects of physical development in the middle years are the interrelated phenomena of growth and puberty. Indeed, Blos has said that "adolescence is the sum total of accommodations to the condition of puberty."[4] The main facts surrounding puberty are well known. The sexual organs quickly mature in shape and size. Girls begin to menstruate and boys develop the capacity to ejaculate. The breasts develop and body and facial hair grows. In short, children quickly come to resemble adults. In all this, chronological age is not a particularly helpful indicator, since the range of individual variations is so wide. We can, however, say that puberty generally occurs in girls between twelve and fourteen years of age, and for boys between thirteen and fifteen, with plenty of exceptions in both cases.

Puberty is preceded by a growth spurt, during which spectacular bodily changes begin to take place. Between the ages of thirteen and fifteen and a half, for example, the "average" boy adds 20.3 centimetres to his height, and the "average" girl adds 8.3 centimetres.[5] At the same time, weight increases, muscles develop, limbs change their proportions and internal organs increase in size. Boys begin their height spurt at any time between ten and a half and sixteen years of age, the "typical" boy beginning his period of most rapid increase at about twelve and a half, reaching a peak slightly after fourteen. Girls begin their spurt about two years earlier, soon after ten years of age, and reaching rapid increase at almost twelve.

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This growth spurt is not characterized by uniformity. The nose and lower jaw, for example, grow more than the rest of the face, changing the face's proportions and giving it a more adult appearance. Legs and trunk increase in size earlier than hips, chest and shoulders. The hands, feet and head reach adult size earlier than other parts of the body. The changes associated with the growth spurt are accompanied by glandular changes, which result in alterations in the appearance and texture of the skin, in increased perspiration and body odour and in the appearance of spots and acne.

No wonder, then, that the physical changes of the middle years have such far-reaching results. J. M. Tanner has noted that "for the majority of young persons, the years from twelve to sixteen are the most eventful ones of their lives so far as their growth and development are concerned."[6] It is worth noting in this regard, that in a historical perspective, these physical changes have been occurring at earlier and earlier ages. American girls today first menstruate, on the average, at about twelve and a half or thirteen years of age; the average ages for their mothers' generation was over fourteen years of age. Similarly, since 1900, height has increased at ages five to seven by one or two centimetres per decade, and at ages ten to fourteen by two or three centimetres. According to Mitchell, the twelve-year-old youngster today is some 7.5 centimetres taller and 6.8 kilograms heavier than the twelve-year-old of only thirty years ago.[7] Puberty now occurs some two and a half to three years earlier than it did a century ago.

It is well documented that youngsters today mature (physically at least) earlier than they did ever before. This earlier maturation is reinforced by the mass media, particularly by recordings and television, which present youngsters with powerful role models and introduce them to adult concepts before they can properly handle them. It is worth bearing in mind, in this regard, Blos's cautionary comment that "the young adolescent of thirteen -- regardless of the status of his primary and secondary sex characteristics -- is still psychologically a child."[8]

This interwoven web of physical changes has, of course, implications which extend beyond the physical. The combination of puberty and growth produces psychological upheavals as well. Mitchell says that "because the early adolescent is adjusting to a 'new' body, self-consciousness and body awareness are at a lifetime high."[9] This is especially so in a society where physical appearance, especially a particular image of beauty, is so pervasively promoted and so widely embraced by the young. All adolescents must come to terms and learn to live with their physical appearance, and this is not always easy. This preoccupation with physical appearance has social as well as personal implications, of course. The onset of puberty arouses an interest in sex in which appearance, both of oneself and of others, plays an important part. The importance of the peer group increases with the onset of puberty; young adolescents can discuss topics with peers in ways which they would hesitate to do with parents or teachers. Growth and puberty also make possible a growing self-awareness and range of experience which have important emotional and moral consequences, not least as youngsters establish new limits and encounter new problems.

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The physical changes that have their beginning in the middle years often manifest themselves in a growing restlessness. This is an extremely physical age, an age of punching, shoving and jostling. A simple "hi!" is not enough for middle years youngsters; a greeting means something only when accompanied by a shove or a push. And why pass something to someone when you can throw it? Every middle years boy seems to see himself as the country's greatest drummer: once seated at a desk or a table he taps his fingers in virtuostic rhythmic displays. It is possible, however, that this kind of restlessness is as much due to the nature of the school as to the dynamics of physiological and psychological change: precisely when youngsters feel especially physical, schools commonly give them fewer outlets for physical expression. To take only the most obvious example, recess ends at the end of grade six. From grade seven on, students are expected for the most part to sit at their desks and listen. It is, therefore, hardly surprising that they have physical energy to burn.

Middle years youngsters have physical energy to burn.

Middle years youngsters may have problems of co-ordination as a result of the rapid changes in their physical development. They sometimes appear to trip over their own feet and to have difficulty performing relatively simple physical tasks. At the same time, other youngsters display marvels of co-ordination in gymnastics, volleyball and other sports. Some of this is due to prior training and some to aptitude, but much is also due to the wide range of individual differences in maturation found in the middle years.

One thing is certain: in this stage youngsters are especially self-conscious about their physical appearance and prowess, either as a source of pride or of shame. They either flaunt themselves or hide themselves. They may well become obsessed by their personal development. To differ from the desired norms of physical skill and appearance is a source of concern at any age, but this is especially so in the middle years.

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All of this means that students' physical development and its consequences are vitally important to teachers of middle years students. Their teaching will be affected, and often interfered with, by their students' physically based needs and concerns. Teachers have a responsibility to do whatever they can to ensure that youngsters' development, physical and otherwise, takes place in a suitable and desirable environment. To quote Tanner once more: "A very important part of the educationist's and the doctor's task at this time is to provide information about growth and its variability to pre-adolescents and adolescents and to give sympathetic support and assurance to those who need it."[10]

WHAT ARE THE ASPECTS OF INTELLECTUAL DEVELOPMENT?

Descriptions of adolescence often emphasize the experience of puberty and sexual development and their wide-ranging effect. However, mental and intellectual development are at least as important. Piaget himself has commented that "pubertal change would play only a very secondary role if the thinking and emotional characteristic of adolescence were accorded their true significance."[11]

Of course, intellectual and physical development are each part of one complex, interlocking process, so that the experience of one influences the other and vice versa. Jerome Kagan has argued that "cognitive functions seem to be central to the changes that occur at puberty."[12] The middle years period is one of spectacular physical change; at the same time, developments in youngsters' intellectual capabilities make it possible for them to think about themselves and to see themselves as others see them, or rather as they think others see them. Thus arises the sensitivity to matters of personal appearance and social acceptance.

As Mitchell points out, intellectual development in the middle years is of two types. The first is the growth and extension of skills and capacities that already exist such as perseverance, concentration and memorization. Because of this growth, it is possible to assign to middle years students heavier workloads than they were given in earlier grades: larger essays, more problems, bigger projects and so on. The second type of development is more important, consisting, as it does, of the emergence of new skills and capabilities, especially those associated with abstract thinking. In Piaget's terms, the transition from the stage of concrete operations to that of formal operations. As he puts it, "At eleven or twelve years of age there is a fundamental transformation in the child's thinking . . ."[13]

Piaget is, of course, the most important scholar in the study of this intellectual transition. Given the importance and the complexity of his work and given its relative unfamiliarity to many teachers, it might be useful to summarize it very briefly here.

According to Piaget, a child's development begins with the sensori-motor stage which lasts from birth until approximately two years of age. In this stage, a child acquires behaviour patterns, as opposed to inborn reflexes.

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The various senses combine so that the child learns to distinguish between himself or herself and the external world and to accept the permanence of objects.

This stage is followed by what Piaget calls the pre-operational stage, which lasts until approximately seven and is dominated by the acquisition of language. Here occurs the beginning of "thinking" -- attempts to link cause and effect, to explain phenomena, to classify objects. By adult standards, however, thinking at this stage is still very immature. In dealing with physical objects and quantities, for example, the child pays attention to only one aspect at the expense of others, as shown by Piaget's well-known experiments involving bowls of flowers, rows of beads and containers of water.

At approximately seven children begin to enter the stage of concrete operations. Now they are less bound by their own perceptions and begin to think quite rationally, although at a very concrete level. Their ability to think abstractly is still very limited, as is their ability to form or test hypotheses or to reason from them. At this stage, Piaget and B. Inhelder say that "concrete thought remains essentially attached to empirical reality."[14] What is sometimes called propositional thinking (if...then...) rarely occurs at this stage. Propositional thinking begins to appear only after approximately ages eleven or twelve, by which time the child is entering the stage of formal operations. Now the child can begin to deal with abstract relationships instead of concrete things; with the form of an argument while ignoring its content; and with hypotheses and theories.

As Piaget puts it: "The 7 to 10 year children when placed in an experimental situation . . . act directly upon the material placed in front of them by trial and error, without disassociating the factors involved. . . . The formal level children, after a few similar tricks, stop experimenting with the material and begin to list all possible hypothesis. It is only after having done this that they start to test them, trying progressively to disassociate the factors involved and study the effects of each in turn . . ."[15] This transition from concrete to formal thought, then, is of crucial importance in early adolescence. It marks a Copernican revolution, a second meaning.

Of course, as with physical development, there is in the middle years a tremendous range of individual variation. Piaget and others have suggested that the development of formal thought begins (but only begins) at eleven or twelve years of age, but this is not necessarily true for all youngsters. Some will already be well advanced in the process by that age. Others may not reach it even by age fifteen. Some can be helped along by careful and sympathetic teaching. Many will move in and out of formal thought, exhibiting it one day but not the day after, displaying it in some subjects but not in others. One of the most crucial tasks of middle years teachers is to decide what point their students have reached in the whole process and what should be done about it.

Most students at the beginning of the middle years will still exhibit concrete thinking, some of them will have already entered the stage of formal

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operations, and others will be on the brink of doing so. To summarize and drastically over-simplify a complicated topic, concrete thought can be characterized as:

- focusing on the real rather than the possible, on the actual rather than the hypothetical;
- focusing on the particular and concrete, rather than the general and the abstract;
- focusing on the descriptive rather than the explanatory or the analytical;
- interested in collecting, cataloguing, classifying;
- finding difficulty in hypothesizing, in putting forward tentative solutions and weighing them against one another;
- finding difficulty in formulating a range of different hypotheses and which best explains a particular case;
- focusing on one aspect of a problem rather than examining all facets of it;
- solving problems on a hit-or-miss, more or less haphazard basis;
- finding difficulty in seeing things through others' eyes;
- showing little inclination to think about thought processes or to engage in introspection;
- possessing an undifferentiated sense of past and present time, so that the past is simply the past with no distinctions between recent and not-so-recent past;
- showing minimal insight into human motivation and behaviour.

Such a list could be expanded indefinitely but it is extensive enough to make the point and encompasses most thinking that teachers are likely to see in their classrooms.

A few examples might help for clarification. A teacher was once trying to explain to a class of grade five students the arbitrariness of language. "Why," he asked, "is a sausage called a sausage? Why not a dog or a butterfly?" To the students, of course, the answer was obvious. "A sausage is called a sausage," they replied, "because that's what it is." For them, the name and the object were synonymous and inseparable. Try as the teacher might, by talking about secret codes, by talking about other languages (and some of the students were bilingual), he could not get them to see the point, let alone accept it, that words are simply conventions. For them the real, the concrete, was self-evident. They saw no need to deal with the speculative or the hypothetical.

In another case, grade eight students were engaged in a history lesson. Their teacher told them that Louis XIV granted the French nobility pensions and then asked them if they knew what pensions were. "Yes," replied one youngster, "it's like what you get when you're old." Here was a classic example of a student providing a concrete, particular example rather than an abstract, general category, offering a description rather than a definition.

Teachers can provide many similar examples, which, properly understood, can provide constant insights into students' thinking patterns. During the

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middle years, however, these patterns begin to change as youngsters begin to think more abstractly.

The child who has moved on to abstract, or formal operational, or hypothetico-deductive thinking is:

- increasingly comfortable with the unreal, the hypothetical;
- examining all aspects of a problem rather than focussing upon one particular feature;
- dealing in hypotheses;
- working in terms of alternative theories and solutions and weighing them one against another;
- arguing in terms of, "if this happens, then such-and-such follows or if the other happens, then so-and-so follows";
- working with the general and the abstract as well as with the particular and the concrete;
- beginning to use systematic modes of approaching problems rather than using haphazard, hit-and-miss approaches;
- comfortable with the analytic and explanatory, rather than simply the descriptive;
- possesses an elaborated concept of time, distinguishing among different gradations of past and future;
- possesses increasing insight into human motivation and behaviour;
- possesses an ability to see oneself and the world through others' eyes;
- able to think about one's own process of thinking;
- capable of and even likes introspection and self-analysis.

It bears repeating, of course, that these capacities are not fully developed by the end of the middle years. It is more a matter that students, to varying degrees of success, are beginning to acquire and to polish them.

This transition from concrete to formal thought can also be usefully examined in the light of the work of the British psychologist, E. A. Peel, who, starting from a more or less Piagetian base, has concerned himself particularly with students' thinking in the various subjects of the school curriculum. Peel has distinguished three broad levels of middle years student thinking: at the first level, students are tautological, deny premise, give partial and inconsistent responses; at the second level, they give responses based solely on the selection from the given content of the passage (i.e., describer thinking); at the third level they give imaginative responses in which outside ideas are invoked (i.e., explainer thinking).[16] As he describes it, the shift from describer to explainer thinking is "a change from particularistic, perceptual, circumstantial and largely inductive ways of thinking to modes of thought revealing the invocation of imagined possibilities which gradually become more articulate in form to warrant the use of the terms hypotheses and propositions."[17] He uses passages such as the following, for example, to assess the quality and level of students' reasoning: "Only brave pilots are allowed to fly over high mountains. This summer a fighter pilot flying over the Alps collided with an aerial cableway, and cut a main cable causing some cars to fall to the glacier below. Several people were killed and many others had to spend the night suspended

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over the glacier."[18] Students are asked two questions about this passage: (1) Was the pilot a careful airman? (2) Why do you think so? Generally, Peel and others have found that only a minority of students answer this passage well, by pointing out that there simply is not enough information given to make a valid judgement. Either they are thrown off stride by the first sentence and confuse the qualities of bravery and carelessness, or they provide a definite, but context-bound, answer along the lines of, "No, he hit the cable." Most students fail to question the validity of the question put to them. Of course, this failure may well be due to their reluctance to challenge a teacher's question. Having spent so much time in school being trained to answer what seem to be pointless questions, students may well come to assume that, if a question is asked, then there must be an answer. The usefulness of this and similar passages lies in their ability to distinguish between pre-logical, describer and explainer thinking, to use Peel's terms. Most middle years youngsters will be at the describer stage, although a noticeable number will display pre-logical thinking at least some of the time. But during their middle years, students will at least begin to move towards explainer thought.

This transition, whether one thinks of it in terms of concrete to formal, or describer to explainer, obviously has important implications for teaching and curriculum. It largely determines what students can understand and learn. It influences their reaction and response to what is taught to them. It shapes (or should shape) how and what we teach. And it is the special responsibility of the middle years teacher to foster and to nurture students' development.

It has become fashionable in recent years to turn to the theory of Epstein and Toepfer, which claims that between the ages of twelve and fourteen "the brain virtually ceases to grow" and that, as a result, middle years students will find it difficult "to develop the new thinking competencies required for new cognitive development."[19] Thus, some middle years educators have urged that new cognitive skills should not be introduced into the school curriculum in this period, but that, instead, more practice should be provided in skills which students have already acquired. Epstein's and Toepfer's argument seems, in some ways, to contradict the findings of cognitive developmental research. This research argues that, in the middle years, youngsters begin to move towards abstract thought, whereas Epstein and Toepfer suggest that, at least between the ages of twelve and fourteen, no new cognitive development takes place. The two positions are not absolutely incompatible but the danger is that some middle years educators have come to regard Epstein's and Toepfer's work as more than hypothesis and have begun to erect it into dogma. However, even if the physical growth of the brain does not alter between the ages of twelve and fourteen, this does not at all prove that intellectual development cannot take place. There is no exact correlation, after all, between size of brain and intellectual capacity and performance. Indeed, as Stephen Jay Gould points out, the very task of measuring brain size is extremely complex.[20] In short, the Epstein and Toepfer argument must be regarded, in present circumstances, as, at best, not proven. It certainly should not be used to make apparently objective

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claims about the development of middle years youngsters and about the kind of schooling they need.

WHAT ARE THE ASPECTS OF PERSONAL DEVELOPMENT (MORAL AND EMOTIONAL)?

The phrase "personal development" is used in this section to describe those aspects of adolescent development which comprise the emotional and the moral, or the sense of values.

An ability, indeed a willingness, to deal with moral questions makes its appearance in the adolescent years. Because of rapid cognitive development, the adolescent youngster is increasingly able to handle abstractions, to form generalized concepts of right and wrong. Whereas a young child will simply judge an act as good or bad with few questions asked, youngsters in the middle years are able to judge an act in terms of its intent. In particular they are able to distinguish between an act and the motives or intentions that caused the act. Faced with the task of deciding whether something is good or bad, right or wrong, they are increasingly able to answer, "Well, it all depends." M. S. and R. C. Smart observe that "children are likely to believe in eye-for-an-eye, tooth-for-a-tooth type of justice, in which people must pay for their misdeeds by enduring inevitable punishment given by some authority. Adolescents can grasp a concept of justice based on making amends for misdeeds, repairing, restoring what has been spoiled or taken away by the wrongdoing. They can conceive of individual responsibility, equality before the law, and impartiality in justice."[21]

During the middle years, youngsters' increasing knowledge of and contact with the world bring an exposure to a much wider range of differing beliefs and standards than they knew when younger. The growing importance of the peer group forces youngsters to listen to others' viewpoints and to defend and perhaps modify their own. Social and cognitive growth produce a capacity to step outside oneself and to see oneself through others' eyes and to see the world as others see it. In his book, The Early Adolescent Years, J. J. Mitchell speaks of the decline of self-centredness and of the growth of other-centredness.[22] Middle years youngsters begin to put away their earlier rigid acceptance of rules and come to see rules as flexible agreements which can be altered.

The middle years see the rise of the conscience, as youngsters acquire the capacity to think about questions of right and wrong, to ponder their own and others' conduct. They experience the tension between following their own wishes and falling in with those of the group. They begin to assert themselves against adults as they strive to acquire more independence. All these developments raise the question of good and bad, right and wrong -- justice, or, as the youngsters themselves would say, fairness. This is the period when teachers and parents can expect to hear more than anything else the accusation, "That's not fair."

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The middle years period is indeed one of transition. In his book, Moral Education, psychologist N. Bull has claimed that his evidence "shows the period from broadly nine to thirteen years to constitute the time of greatest development in moral judgement."[23] J. J. Mitchell has conveniently summarized the "five fundamental changes" that take place in moral structure in early adolescence: (1) moral outlook becomes less concrete and more abstruct; (2) justice emerges as a dominant concern; (3) moral judgement becomes increasingly cognitive and personal; (4) moral judgement becomes less self-centred; (5) moral questions and judgements generate stress and tension.[24]

Piaget has described this moral transition as one from "heteronomy" to "autonomy," that is to say, as one from which rules and moral codes are simply taken as given to one in which they are arrived at independently. This concept of a development in moral reasoning has been taken furthest by Lawrence Kohlberg and, although his work has come under some question in recent years on both philosophical and empirical grounds, his sequence of stages is still useful, provided that one does not interpret them too literally. For teachers particularly, the important point is not so much whether Kohlberg is right or wrong, or to what extent, but that there is a sequence in students' moral development. The stages are:

1 Punishment and obedience orientation: The physical consequences of action determine its goodness or badness regardless of the human meaning of these consequences. Avoidance of punishment and unquestioning deference to power are valued in their own right.

2 Instrumental relativist orientation: Right action is that which satisfies one's needs, and, occasionally, the needs of others. Especially this is a you-scratch-my-back - I'll-scratch-yours approach.

3 Good boy/nice girl orientation: Good behaviour is that which pleases others and is approved by them. "He means well" becomes important for the first time. Behaviour is judged by intention.

4 Law and order orientation: Right behaviour consists of doing one's duty, respecting authority, and maintaining the social order.

5 Social contract legalistic orientation: Right is defined in terms of self-chosen ethical principles based upon logical comprehensiveness, universality and consistency. These principles are not specific rules like the Ten Commandments, but rather the general more abstract principles underlying such specific rules.[25]

One reason that Kohlberg's work is valuable is that it draws teachers' attention to the crucial fact of students' readiness for, and ability to engage in, different types of moral reasoning. It is clearly futile to involve students in discussions of moral issues at a level beyond which they are able to proceed. Thus, the first task for the teacher is to find out

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where students are in terms of moral reasoning so that teaching strategies can be employed effectively.

The development of moral reasoning and, indeed, the whole sequence of moral development generally, is connected with the drive towards independence. Obviously, most middle years children are still dependent on parents or other adults, but they are, nonetheless, beginning to assert themselves. As J. Adelson puts it, "The adolescent, generally from the years of eleven to thirteen, delights in his feeling of separateness and autonomy, often wants to act as though he has no parents at all, and defines himself primarily by saying no to the parents or anyone else who tries to infringe on his freedom. In some ways, early adolescence is a second state of competence."[26] The physical changes that occur during the middle years arouse new capacities, needs and interests, the cognitive changes produce an increased intellectual power and sophistication, and a whole set of commercially induced pressures encourage youngsters to set themselves off as a separate group. It is not just a case of middle years children looking for the nearest pinball arcade, however, or congregating at some convenient spot. This drive towards independence is far from a negative phenomenon, although we often force it into negative channels. According to M. S. and R. C. Smart, youngsters in the middle years consistently indicate "a strong desire to be self-directing, to establish and work for worthwhile goals, and to be productive."[27] Unfortunately, the present junior-high curriculum fails to offer such opportunities. One of the challenges facing those responsible for developing programs in the middle years is to correct this problem.

All of these developments -- physical, intellectual and personal -- are linked with the development of a sense of identity. There is a dawning awareness in middle years youngsters of who they are; this is very often combined with a contradictory sense of who they would like to be. Erik Erikson, in Childhood and Society, has written about the eight ages of man, in which adolescence forms the age of identity and role-confusion.[28] As youngsters begin to form a sense of identity, a sense of who they are, they often experiment, more or less briefly, with a series of roles. Towards the end of the middle years, youngsters begin to think about their futures, even if they do so haphazardly. They must begin to think about their choice of high-school courses, for example, which forces them to project several years ahead. As they are increasingly streamed into ability groups and programs, they form a sense of themselves as more or less successful in school terms.

No wonder, then, that this can also be a highly emotional age. The best words to describe the emotional state of middle years youngsters are variabilitly and intensity. Theirs is a stage of great stress and contrasts. When they are happy they are ecstatic; when they are sad they are almost overwhelmed in despair. Moods ranging from ecstasy to severe depression, from anger to complacency, from aggression to affection are common. These emotions often overwhelm youngsters or come close to doing so. For them, no one else ever felt like this before or is likely to again. One of the more difficult tasks — but a necessary one -- of early adolescents is to learn to come to terms with their emotions and to manage them without

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either stifling them or being overwhelmed by them. As Mitchell puts it, "The process of learning about emotions and their impact on self is, in large measure, what adolescence in North America is all about."[29]

WHAT ARE THE ASPECTS OF SOCIAL DEVELOPMENT?

For most children in the middle years, relations with their peers are extremely important. Rejection by peers creates a major crisis, and children in this period spend much time seeking out ways to win acceptance by their peers and to avoid rejection. This is complicated by the fact that at this period of life -- perhaps more than at any other -- social cruelty can be quite prevalent. The child's life can be dominated by the need to conform

Middle years children spend much time seeking out ways to win acceptance by their peers and to avoid rejection.

and the desire to be popular. Mitchell says that between the ages of ten and fifteen "the individual is more group-oriented than at any time during the first twenty years of life."[30] In part, this group-orientation results from the increasing maturity of early adolescents. They are leaving childhood behind but are still some years away from adulthood. As a result, their needs for acceptance, belonging and esteem can be satisfied best by the peer group.

This does not mean that middle years children are totally conformist or totally dominated by the group. Their capacity for introspection has

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already been noted and they can go their own way when it suits them. Indeed, many youngsters have to wrestle seriously with the problem of what to do when the group wants to go one way and they prefer to go another. The need for conformity co-exists and conflicts with the need to be different. to be distinctive. One of the problems with which middle years children have to cope is to work out a priority between their individual inclinations and those of the group.

One notable aspect of the social life of middle years youngsters is an increased interest in sexuality. With the onset of puberty and accompanying physical changes, middle years youngsters are becoming more conscious of the opposite sex. Connected with a growing awareness of their sexual identity is their awareness of their membership in specific cultural and economic groups. The students' abilities develop in part out of their experiences of belonging to such groups.

Middle years youngsters are becoming more conscious of the opposite sex.

CONCLUSIONS

In describing the characteristics of middle years youngsters, there is a danger of making them sound totally bizarre. Textbooks on adolescent psychology often dwell on the more dramatic manifestations of adolescence. It must be admitted that middle years educators themselves sometimes exaggerate the more unusual traits of their students in their concern to describe their uniqueness. Thus one comes across articles with such titles as,

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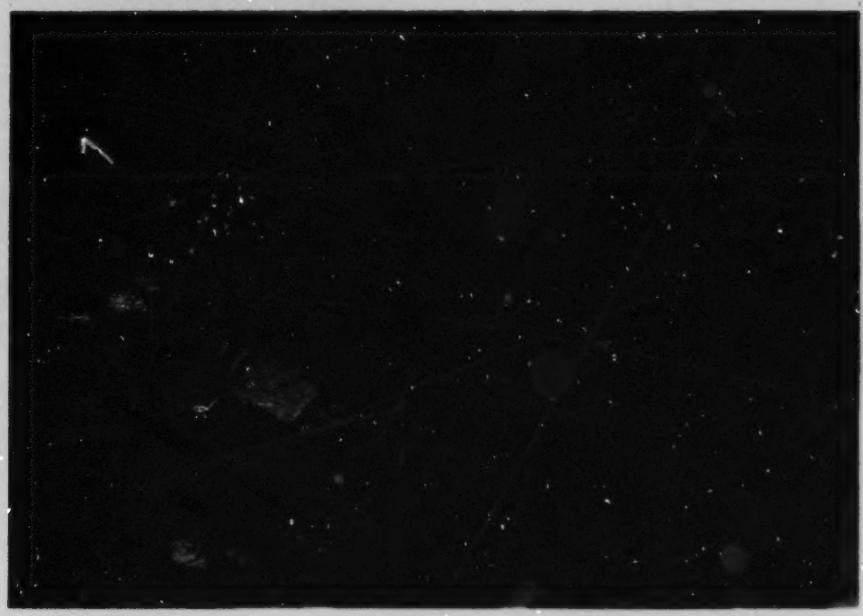
"How to Survive in the Middle School Jungle," and for a while it was fashionable to describe students as "squirrelly." This tradition of exaggeration goes back to G. Stanley Hall and was reinforced by the psychoanalytic interpretation of adolescence. Thus, Anna Freud wrote: "I take it that it is normal for an adolescent to behave for a considerable length of time in an inconsistent and unpredictable manner; to fight his impulses and accept them; to ward them off successfully and to be over run by them; to love his parents and to hate them; to revolt against them and to be dependent on them; to be deeply ashamed to acknowledge his mother before others and, unexpectedly, to desire heart-to-heart talks with her; to thrive on imitation of and identification with others while searching unceasingly for his own identity; to be more idealistic, artistic, generous and unselfish than he will ever be again, but also the opposite: self-centred, egotistic, calculating."[31] This is perhaps a rather melodramatic way of referring to adolescent inconsistencies and one which implies that only adolescents are inconsistent, but it reflects an approach that is not uncommon in the psychological and educational literature.



Much recent research suggests that adolescents, generally, are remarkably stable.

In reality, however, much recent research suggests that adolescents, generally, are remarkably stable. In Joseph Adelson's words, "Taken as a whole, adolescents are <u>not</u> in turmoil, <u>not</u> deeply disturbed, <u>not</u> on the mercy of their impulses, <u>not</u> resistant to parental values, <u>not</u> politically active, and <u>not</u> rebellious."[32] The point is well taken. In describing the middle years as a distinct stage of development with unique needs and characteristics, it is important not to make the children at this stage appear totally strange.

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3. THE NEEDS OF STUDENTS

WHAT ARE THE PROBLEMS OF IDENTIFYING NEEDS?

Middle years students possess particular characteristics; they also possess particular needs, which must be addressed if they are to negotiate this stage of development successfully. One of the important distinctions between the approach of middle years education and that of the junior high school is that the former attempts to pay particular attention to students' needs.

It must be stressed at the outset that the concept of needs is particularly slippery.[1] Needs cannot be identified experimentally or observed scientifically. Rather, they must be inferred. To say that someone needs something, for example, is to make two statements: one, that he or she does not have it and, two, that he or she ought to have it. The "ought to" in this last phrase is important. It indicates that a need is not something objective but rather the reflection of a value judgement that an observer makes. Thus, when we say that students need something, we are really saying that there is something that they do not have but ought to have and we make this judgement in light of our presuppositions and assumptions about the good life and the good society. Thus, for example, when D. Pratt says that students need aesthetic experiences, he does not mean that they cannot survive without them, but that they will not achieve his ideal of the good life without them.

To complicate matters further, our assessment of needs will vary according to time and place and according to the experience of the students. Some students will need encouragement; others will need restraining. Some will need to be more imaginative; others will need to be less so. Students in small, isolated communities will not share all the needs of students in larger urban centres. In those urban centres, those below the poverty line will not have the same needs as those from more affluent homes.

These confusions and ambiguities surrounding the concept of needs have led some psychologists to speak, instead, of "developmental tasks," that is, those tasks which must be performed for successful living. A standard definition is: "A developmental task is a task which arises at or about a certain period in the life of the individual, successful achievement of which leads to his happiness and to success with later tasks, while failure leads to unhappiness in the individual, disapproval by the society and difficulty with later tasks."[2] There is something circular about this defini-

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tion and, in any event, upon closer analysis, the concept of developmental tasks proves to be no less subjective than that of needs.

Nonetheless, despite the vagueness and the subjectivity surrounding the concept of needs, it is a concept that can hardly be ignored. It is difficult to imagine teachers who do not shape their teaching to what they perceive to be the needs of their students, no matter how intuitively the needs are assessed. The point is not to reject needs as somehow unscientific but to recognize their complexities. Middle years teachers need to think seriously about the argument that their students have particular sets of needs; they need to consider their implications for program design and for teaching.

HOW HAVE NEEDS BEEN CATEGORIZED?

Probably the best-known formulation of needs is that described by Abraham Maslow, who spoke of a hierarchy of needs, beginning with the physiological and ending with self-actualization. Very briefly, his classification was five-fold and sequential. The five levels are characterized by: (1) physiological needs; (2) safety needs; (3) social needs; (4) esteem needs; (5) self-actualization needs. All of these classifications certainly apply to middle years youngsters, although it may well be that the five categories are not so much hierarchical and sequential as they are interconnected and interacting.

Since Maslow wrote, other classifications have been suggested, all of which have something to offer to anyone designing programs or teaching in the middle years. There is not the space here to examine these classifications in detail, but it may be worthwhile summarizing the ones found to be most useful:

1 M. Pringle: love and security; new experiences; praise recognition; responsibility.[3]

2 D. Pratt: self-actualization; meaning and authenticity; social relationships; aesthetic needs ("the experience of beauty"); survival needs.[4]

3 J. J. Mitchell: status and acceptance; independence; achievement; role experimentation; positive self-regard.[5]

4 C. James: to be needed; to need; to move inwards; to affect the outer world; intensity; routine; myth and legend; fact; physical activity; stillness; separateness; belonging.[6]

TO WHAT NEEDS SHOULD MIDDLE YEARS EDUCATION RESPOND?

Despite differences in wording, these four sets of key words have a good deal in common. From them and other sources, not the least of these being the observation of and experience with middle years youngsters, it is possible to compile an adequate working list. In sum, the needs of middle years youngsters to which schools should respond are:

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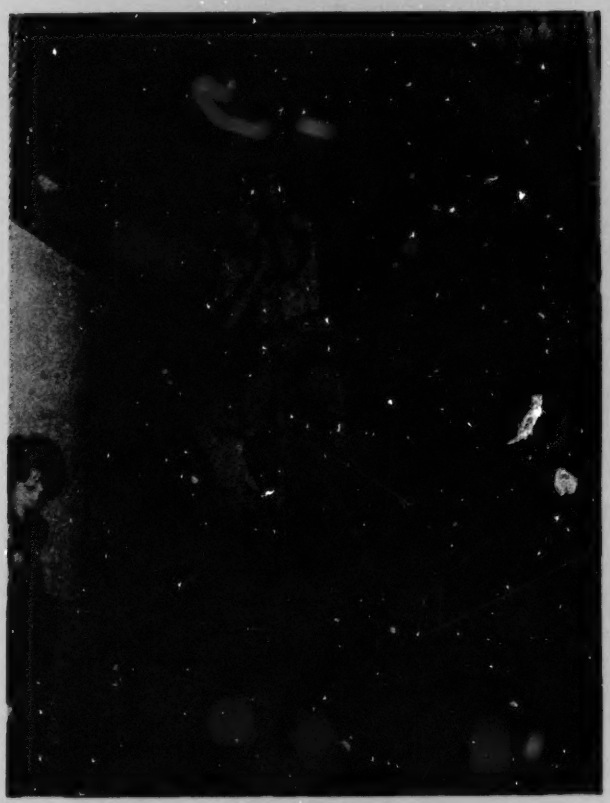
- physical needs
- need for achievement and responsibility
- need for status and recognition
- need for security and acceptance
- need for privacy
- need for positive self-image
- need for independence
- need for experimentation and new experiences
- need for imaginativeness
- need for information and knowledge
- need for intellectual skills
- need for aesthetic experiences

1 Physical needs

Obviously there are basic survival needs which have to be satisfied if anything else is to be accomplished. Health, nutrition, physical exercise and fitness all have to be attended to. Some middle years youngsters are not in good health; they may not be adequately fed; they may not be fit. Such problems, where they exist, can hardly be ignored by schools.



An effective middle years program must provide scope for both organized and unorganized physical activity.

Beyond the basic survival needs, there are other physical needs which are especially important in the middle years, and these have to do above all with the physical changes experienced by youngsters. Middle years youngsters may need help and support to come to terms with their rapidly changing bodies, especially if they are noticeably out of step with their peers and expecially in view of their concern for their appearance. In part this will be a matter of advice, support and sympathetic counselling, but it will also be a matter of sheer information. As Charity James puts it, "At the very least, a school library in a middle school or high school ought to have a plentiful supply of books on adolescence. It always strikes me as extraordinary arrogance in adults that we feel entitled to know more about adolescents than we permit them to know about themselves."[7]

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The other major physical need experienced in the middle years is the need for sheer activity. As noted in chapter 2, this is a very physical age. Youngsters need time and opportunity to let off steam, to run, to jump, to kick, to throw and simply to move around. Paradoxically, however, it is precisely at this most physical stage that we do not allow much activity in the school. An effective middle years program must provide scope for both organized and unorganized physical activity.

2 The need for achievement and responsibility

In the past, puberty was not only a physical benchmark, but it was also a sign of social adulthood. It signified to all intents and purposes the end of childhood and the beginning, if not the full achievement, of adult status. This, of course, is no longer the case. In many ways, puberty has been demeaned. Despite their attainment of sexual maturity, adolescents remain children in many ways. Their energy, enthusiasm and capacity for work are neither needed nor valued by society at large. To quote Charity James again, "It is extraordinarily difficult to come through adolescence in good shape in a society that has . . . little use for the vibrant energies of the young."[8]

As they move into and through adolescence, youngsters begin to seek independence. They wish to assert themselves as distinct and autonomous individuals. They possess an idealism as yet untainted by compromise. They wish to prove to themselves and others that they are no longer children. All this can be accomplished by doing something worthwhile. As J. J. Mitchell puts it, "The adolescent wants the chance to prove himself, to be an important member of his family and school, to be socially acknowledged and made to feel important, to be accepted, recognized and esteemed."[9]

3 The need for status and recognition

This desire for acceptance, recognition and esteem has much to do with the wish to achieve status, to be recognized as someone special. Middle years youngsters are prone to self-examination and are beginning to develop the skills and capacities to think about themselves. In particular, they develop the capacity to see themselves through others' eyes and are increasingly concerned about other people's opinion of them. As a result, youngsters wish to be seen as something special, something unique, and are very conscious of their image. For some this may lead to self-satisfaction, whether justified or otherwise; for others, those who do not "make it," it may lead to introversion and withdrawal.

For middle years youngsters the peer group assumes increasing importance. Some will do almost anything to gain or maintain membership in some clique; some will do things against their wishes under the pressure of the group. Many youngsters will have to make a decision at some point whether to go with the group or to follow their own inner promptings and this can be a difficult decision.

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In the early part of the middle years (up to about thirteen years of age) the peer group will usually be made up of the same sex. After about thirteen, boys and girls begin to pay more attention to each other, however, this is neither a smooth nor a universal process. At the same time, recognition may be sought not only from peers but from significant adults. This is, after all, the great age of "crushes" -- on teachers, on entertainers or sports figures.

The middle years period is the great age of "crushes" on teachers, entertainers or sports figures.

4 The need for acceptance and security

Much of what has been said above applies equally to the need for acceptance and security. Although by the end of the middle years, youngsters are physically capable of standing alone, they are seldom able to do so emotionally or socially. They lack experience of the world; they lack maturity and sophistication. Although the middle years period is one when youngsters test the limits and assert themselves, they still want a base to which they can retreat and find security, a place where they will be accepted for what they are without too many questions asked -- hence, of course, the importance of the peer group. Above all, youngsters in this stage of development need affection. They need to know that someone cares. Students, for example, may well prefer a "tough" teacher to a lax one, reasoning that a teacher who is tough is showing a degree of caring and concern.

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5 The need for privacy

Middle years youngsters need times to be alone.

Although social needs are obviously strongly felt in the middle years, this is not simply a period of giddy socializing. It is also the great age for diaries, for journals, for private fantasies, for retreating to one's room, for withdrawing into the private world of recorded music. Charity James describes all this as the need to move inwards. As described above, middle years youngsters are especially prone to introspection. They need times when they can be alone, when they can experience solitude. At the same time, this must not be allowed to become an unhealthy brooding, or a psychic withdrawal from the real world. Teachers need to watch especially for the student who has no contact with anyone.

6 The need for a positive self-image

Like anyone else, middle years youngsters need to think well of themselves. Given their capacity for self-analysis, their concern for the judgements of others, their worry about physical appearance, it can be difficult for youngsters to form a realistic self-image. This is, after all, a period when one begins to find out one's limitations and therefore to realize that super-stardom may be beyond one's reach. It is also the period when youngsters have to sort out the sometimes conflicting priorities of school and the peer group. It will not always be possible to be both a good student and one of the gang.

In addition, as Erik Erikson and others have argued, the middle years are a period when the search for identity becomes increasingly important. The middle years are often a period of intense self-questioning and self-doubt Do people really like me? What am I good at? How do I compare with others? These kinds of questions are often in the minds of middle years youngsters.

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Unlike their elders, they have not yet had the chance to come to terms with themselves, and so the questions can often be that much more intense.

7 The need for independence

As the middle years progress, youngsters press for more independence. They test the limits; they see themselves as having left childhood behind. They will almost certainly question authority, even if they do not actively dislike or suspect it. However, as J. J. Mitchell has pointed out, in the middle years, it is not so much a question of independence as of self-assertion: "The adolescent battle-cry for independence is really only a plea for less restriction, not a cry for true independence. The early adolescent mind has difficulty distinguishing between the two."[10]

8 The need for experimentation and new experiences

New experiences are obviously important throughout life if stagnation is to be avoided. They are certainly important for the healthy development of young children. They are no less important in the middle years. Physical changes, the growing interest in sex, the transition from concrete to formal operational thought, the increasing freedom of movement and possession of pocket money, increased interaction with peers -- all these make it easier than ever before for young adolescents to have access to new experiences. This is, for example, often the age when youngsters begin to experiment with alcohol, drugs or tobacco. This search for new experiences and their willingness to experiment are also closely connected with the needs for recognition, for status, for independence and for identity.

9 The need for imaginativeness

Charity James describes the need for imaginativeness as the need for myth and legend and links it with the adolescents' search for meaning and identity: "As adolescents move more deeply into a concern with the nature of man and the place of man in the universe, they need to be able to draw on man's most profound symbolic insights as well as on the hypotheses of the behavioural sciences."[11] She has rightly argued that we have paid too little attention to the role of myth and fantasy in life in our concern to explain the world scientifically. Many observers have drawn attention to youngsters' interest at this stage in the exotic and fantastic. K. Egan has described adolescents' "fascination with the extremes of what exists and what is known"[12] -- and one might suggest, <u>beyond</u> what is known.

There are, however, many forces, in the mass media and in the school curriculum, which stultify the imagination and do not allow it full rein. If middle years youngsters are to explore questions of identity and meaning fully, then it is important that they are encouraged to be as imaginative and creative as possible. As James suggests, myth and legend have a part to play here. Beyond this, however, they can enrich life at any age and it is wrong to deny or restrict it in the middle years.

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10 The need for information and knowledge

There is, however, a counterbalancing need for information and factual knowledge. Middle years youngsters are full of questions: What happened? How does it work? In a lesson about World War I, for instance, students were listening to a talk on the use of aeroplanes as fighting machines. They were not satisfied to be told simply that someone invented a device by which a machine gun could be fired through the propeller, they wanted to know who had invented it and just how it operated. This thirst for knowledge, incidentally, can be combined with the need for imaginativeness, for in such situations teachers can get students to set their minds to the task of inventing the device for themselves. As the career of any scientist shows, there is no contradiction between imagination and knowledge: one feeds the other.

This interest in detailed knowledge can be too easily dismissed as "trivia" as teachers struggle to cover their courses in the allotted time, or choose instead to emphasize concepts and generalizations. There is a fine line to be trodden between skimming over the facts and suffocating students in them but their interest in detail must be acknowledged. The middle years stage is one of collecting, of cataloguing, of compiling statistics and lists. It is also an age when students' growing intellectual powers make it possible for them to test general statements against concrete particulars. Middle years youngsters are prone to broad general assertions — such as "Well, it's human nature isn't it?" -- without taking into account specific and particular examples. Charity James's comment, "I have been worried by a lack of respect for detail and complexity which seems to me to prepare young people to become members of Orwell's Admass,"[13] is well taken.

11 The need for intellectual skills

The middle years are also a period in which it is important to continue to improve the intellectual skills of students. They live in a society where mastery of the three Rs is still important to success, both in terms of career and of personal life, and it is likely to remain so. Beyond the basics of the three Rs, their increasing intellectual competence also makes it possible for them to travel further along the road to critical thinking and to creativity; both of these can be enhanced by carefully planned teaching and curriculum.

Given middle years youngsters' other needs, most notably those concerned with new experiences, with identity, with imaginativeness, it is obvious that mastery of the basic intellectual skills can unlock a whole world of literature and other forms of human expression which has much to say to middle years youngsters. There is a danger which has not always been avoided that, in arguing that teaching and curriculum development in the middle years should address the needs of students, the intellectual substance of the program is diminished. This need not and should not happen. The intellectual needs are no less important than the others, and, indeed, are usually closely connected with them.

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12 The need for beauty and aesthetic experience

The need for beauty and aesthetic experience is not something that youngsters themselves will automatically perceive as a need, but it is important nonetheless. In its pursuit of efficiency and growth, modern society has too often overlooked and undervalued the need for beauty, be it in our environment, our everyday artifacts, our leisure opportunities or anywhere else. Schools themselves often fail to provide an opportunity for aesthetic experience, either formally or informally. Charity James has commented of many new schools, with their rows of lockers, their undecorated walls, their straight lines: "These are no buildings for young people to spend their time in; they breed a sense of powerlessness, and unwittingly, no doubt, but significantly, they seem designed to institutionalize the human spirit."[14] This last phrase, "The human spirit," is important. It is especially important in the middle years.

CONCLUSIONS

What then, can be made of all this? To return to the beginning of this chapter, we must remember that any attempt to define needs is more subjective than objective. The existence of needs cannot be observed; needs must be inferred. It is important that teachers do not take one or another list of needs as gospel, but that they use lists as a basis for their own diagnoses.

The needs described above could obviously be arranged differently. They are not listed in any particular order of importance since they are all interconnected. They could be described differently and given different headings. Put together, however, they do represent a composite of the needs of middle years students.

It might be observed that there is nothing unique about these needs: they apply equally well to late adolescence and even to adulthood. There is much truth in this, but what makes them particularly important in the middle years is not that they are unique, but that they are experienced for the first time. Most adults have had enough experience to come to terms with themselves. For better or worse, they have learned to live with compromise, with second-best, with failure. Politics has been described as the art of the possible, but the description could well be applied to life itself. Middle years youngsters, however, are only beginning to find out what possibilities do exist; they push against them and step over their limits. The needs described above are experienced for the first time by children in the middle years; they have not yet built up the emotional and intellectual reserves to deal with them. However, they now have the intellectual skills to take increasing notice of them.

Any definition of needs is subjective, complicated and messy. Despite this, however, these needs cannot be ignored. It is impossible to teach successfully without somehow taking them into account. This is especially true in the middle years.

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4. TEACHING IN THE MIDDLE YEARS

WHAT QUALITIES ARE REQUIRED FOR GOOD MIDDLE YEARS TEACHING?

It is sometimes said that the successful middle years teacher needs special qualities and skills different from those needed in either earlier or later grades. On the other hand, there are those who say that good teaching is good teaching, no matter at what level it occurs and that there is nothing particularly distinctive about teaching in the middle years. Many of the lists which appear from time to time attempting to describe the qualities needed for successful teaching in the middle years are lists which simply describe good teaching at any level. However, there are some qualities which, if not unique, are particularly appropriate to the middle years; they are qualities without which teaching in the middle years would be unnecessarily difficult. Good middle years teachers should possess:

- the ability to recognize and deal with the transition from concrete to formal operational thought;
- the ability to deal with a wide range of individual differences;
- the ability to respond to students' needs;
- the ability to work comfortably with a wide range of teaching strategies;
- the ability to organize active learning;
- the ability to combine child-centred and subject-centred approaches to learning.

HOW CAN STUDENTS BE HELPED TO MAKE THE TRANSITION FROM CONCRETE TO FORMAL OPERATIONAL THOUGHT?

Although they cannot ignore the social and emotional needs of their students, teachers are above all concerned with the intellectual development of those students. Their central aim is, or should be, to introduce their students to the world of knowledge and to teach them how to make it their own. It is this concern for intellectual development that gives so much importance to the transition that occurs in the middle years from concrete to formal operational thought. The general nature of this transition has been described in chapter 2. This chapter will concentrate on the implications of this transition for teaching. It makes three suggestions: one, that teachers should be familiar with the appropriate theoretical and research literature; two, that teachers should be able to diagnose students' behaviour (for example, as it appears through questions, answers, ideas, contributions to discussion, written work and so on) so as to form at least an

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approximate idea of where students are in the developmental sequence; and, three, to organize their programs and their teaching at a level appropriate to their students' stage of development.

This section will examine the research evidence bearing on middle years students' understanding of particular school subjects, and especially of language arts/social studies and mathematics/science. The grouping of language arts and social studies is convenient and defensible, given the considerable overlap between them in terms of the concepts and skills involved. The same is true of the grouping of mathematics and science. If teachers are to turn the findings of developmental psychology to good effect in their classrooms, it is important that they become familiar with the research, for it provides many clues and insights which are invaluable for an understanding of their students' thinking. It is crucial that middle years teachers consider the diagnosis of their students' levels of development an important part of their task; they should then adjust their teaching accordingly. Students cannot be precisely located on some developmental continuum, but they can be usefully categorized as being more or less concrete or formal operational, or describer or explainer, to use E. A. Peel's terms. What this means is that teachers must quickly be able to assess students' responses and suggestions in light of their developmental implications. An example might make this clearer. A grade eight class was being taught about the conditions that led up to the French Revolution and was told that the French aristocracy of the eighteenth century were often granted "pensions" by the king and that these pensions were resented by other sections of the population. The teacher asked the students if they knew what a pension was. "Yes," replied one student, "it's like what you get when you are old." Here is an indicator of level of development. The student did not give a general definition (i.e., an abstraction); she gave instead a concrete example. It might be noted in passing that this is typical of many students. When asked to define something (e.g., revolution, tragedy, scientific method), they often describe an example of it. In this case, the teacher should have accepted the student's answer, then asked for other examples (e.g., widows' pensions, war pensions, disability pensions, etc.) and finally asked if students could see what they all had in common so that they could abstract some general definition from all the concrete particulars. In this way, the teacher would be diagnosing the developmental levels of the students and at the same time adjusting developmental movement.

There is some interesting and suggestive research which speaks to the issues of diagnosis and instruction in language arts and social studies. Peel distinguishes between describer and explainer thinking and says that many adolescent students are at his describer stage. Indeed, R. N. Hallam, perhaps the most pessimistic researcher in this area, has concluded that "ignoring any extreme instances, 16.2 to 16.6 years is the chronological age at which formal thinking in history begins. It seems, however, that a mental age of 16.5 to 18.2 is required for the beginning of the formal stage."[1] According to Hallam's view, history (and, by extension, those aspects of social studies and language arts that require similar concepts and skills) is simply unteachable in the middle years.

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In some ways, of course, this idea is not startlingly new. Teachers of history and literature have often complained of the difficulties of teaching young students the complexities and intricacies of these subjects. Students tend to see the world in blacks and whites, but history and literature are full of grays. 1066 And All That eloquently satirizes youngsters' misunderstanding of history -- and of the way in which it has often been taught. The eminent British historian, G. R. Elton, for example, has described his "serious doubts about the wisdom" of teaching history to school students at all, arguing that "history deals with the activities of men, not of abstractions, and a measure of maturity is really necessary before the student can understand what is before him. . . . In a very real sense, history is not a good subject to teach to children, or rather, the 'real' thing -- academic history — is the wrong thing for them."[2] This is an unnecessarily gloomy conclusion, and yet it is not entirely without foundation.

Joseph Adelson and his colleagues, for example, have unearthed a developmental sequence in students' social thinking which has strong parallels with Piagetian theory. Social thinking -- that is, the ability to reason coherently about social issues -- plays an important part in much discussion of literature and social studies. In Adelson's words: "The most important change that we find in the transition from early to middle adolescence is the achievement of abstractness. On the threshold of adolescence the child adheres to the tangible; he is most comfortable (and capable) with the concrete event, the actual person; . . . the older adolescent, however, can move from the concrete to the abstract and then back again."[3]

Adelson and his colleagues have identified the following changes in the thinking of young adolescents on political and social questions:

1 They shift from what might be called a personal to a more institutional view of authority. At twelve years of age, for example, the typical youngster sees government as a president, a prime minister, a mayor, or simply an amorphous "they." By the time they are sixteen or seventeen, however, youngsters have a much more sophisticated view of government; they see it as a complex of institutions, bureaucracies and customs.

2 Early adolescents find it difficult to think in socio-centric terms; they show few signs of sense of community and find it hard to think in terms of, say, the general good. Rather, instead of thinking of society as a whole, they think in terms of specific individuals. By the age of sixteen, however, adolescents are increasingly able to think about problems in terms of conflicting interests, of majority and minority rights, of the welfare of society as a whole.

3 During adolescence, youngsters' views of the function of government and law change. Twelve- and thirteen-year-olds take a Hobbesian view of social life. Government is there to keep people in order; without it all would be chaos. In Adelson's words: "To a large and various set of questions on crime and punishment, they consistently propose one form of solution: punish, and if that does not suffice, punish harder." By late

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adolescence, however, this single-minded authoritarianism has given way to a broader understanding of the various functions of law and government beyond only retribution.

This development in youngsters' understanding and definition of law is seen also in some English research. In one English study, students were asked to define a number of commonly used historical terms, including the word law. The following modal responses were found:[4] approximately thirteen years: "Laws are rules which should be obeyed"; approximately fifteen years: "Laws are made for the good of the country;" approximately eighteen years: "Laws are a system of rules which are imposed upon society in order to promote freedom for the individual while preventing him from encroaching others' freedom."

4 Another finding of Adelson's was, not surprisingly, that young adolescents have a very shallow concept of motivation. Their reasoning tends to be circular: people act wickedly because they are wicked. Judgements of character and behaviour are black/white or good/evil, with little appreciation of any complexity. Again, this simplicity declines with age.

5 Adelson states that the youngsters he interviewed showed little sense of historical time: "In the early years of adolescence the child's mind is locked into the present." Significantly, Adelson also found that, as adolescence progresses, youngsters are increasingly able to deal with the future, for instance, they are able to anticipate future consequences of present actions, whether real or assumed. However, "for most of our subjects, even the older ones, the sense of history is undeveloped."

Teachers immediately realize that words like feudalism, capitalism, individualism and humanism need careful definition. We often assume, however, that if students can define such terms, they can also understand them. Not so obvious is the fact that everyday words like law, government and king may not mean for students what we think they mean. Wood's observations on students' understanding of the word law have already been noted in chapter 2. Similar developments can be found with many other terms. J. B. Coltham, for example, found a sequence in the understanding of the word king -- as expressed verbally and by drawing -- from the association of king with pomp, through king with power, to king with power and change.[5] Wood similarly found four classes of answers in order of increasing maturity: (a) "the king lives in a castle far away"; (b) "a king is somebody very important and a king is a very rich, a famous man out of the royal family"; (c) "a king is the ruler of the country"; (d) "a person who may rule his country by himself, may rule it in co-ordination with advisers or a government, may simply be a figurehead."[6] Other examples could be given, but the point is clear: there is a developmental pattern.[7]

A similar pattern can be found in science and mathematics, where students' ease in reciting formulas and in repeating rules too easily obscures difficulties in understanding.

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Researchers have pointed to two particular attributes of formal thinking which are often lacking in the middle years: the acceptance of lack of closure; and, the ability to cope with multiple interacting systems. The first attribute, acceptance of lack of closure, describes a willingness to tolerate ambiguity and to leave a problem open-ended for as long as possible in order to reach a solution. This is a difficult accomplishment for many middle years students, especially those in the younger age range, who tend to move quickly to a finite solution to a problem. This parallels Piaget's distinction between perception and logical operation, where youngsters respond to what they perceive in a problem, to what is immediately noticeable and arresting, rather than think through all the logical implications of the problem. To use another of Piaget's concepts, middle years students often centre on one particular aspect of a problem rather than take into account all of the facets. The second attribute, the ability to cope with multiple interacting systems, is another which many middle years students do not appear to possess. A multiple interacting system is one in which three or more variables simultaneously interact with each other so change in one produces changes in the other two, as, for example, when speed, weight and length act in relation with each other. K. F. Collis uses the example of the formula for finding the area of a rectangle: area = length x breadth. He found that students at a late concrete operational stage (i.e., early in the middle years) can work comfortably with the formula. What they cannot do is relate changes in one or more of the three variables (area, length, breadth) to changes in the others. For instance, they cannot solve a problem in which the area is to stay constant, breadth is to be changed in some specified way, and the task is to decide what must be done to length.[8]

This can be seen in another way. Eighty percent of eleven- and twelve-year-olds recognized the following as a problem demanding multiplication: A bucket holds 8 litres of water, 4 buckets of water are emptied into a bath. How do you work out how many litres of water in the bath? This is a problem involving only two variables: it does not represent a multiple interacting system. By contrast, in a problem that does involve a multiple interacting system, only fifty percent of eleven- and twelve-year-olds saw the need for multiplication: A shop makes sandwiches. You can choose from 3 sorts of bread and 6 sorts of filling. How do you work out how many different sandwiches you could choose?[9]

Even into the middle years, some students will remain to all intents and purposes pre-operational in their mathematical and scientific reasoning. Here for example, is an eleven- to twelve-year-old response to this problem:

Interviewer: A gardener has 391 daffodils. These are to be planted in 23 flowerbeds. Each flowerbed is to have the same number of daffodils. How do you work out how many daffodils will be planted in each flowerbed?

Student: You er . . . I know what to do but I can't say it . . .

Interviewer: Yes, well you do it then. Can you do it?

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Student: Those are daffodils and these are flowerbeds, large you see . . . Oh! they're being planted in different flowerbeds, you'd have to put them in groups . . .

Interviewer: Yes, how many would you have in each group? What would you do with 23 and 391, if you had to find out?

Student: See, if I had them, I'd count them up . . . say I had 20 of each . . . I'd put 20 in that one, 20 in that one . . .

Interviewer: Suppose you had some left over at the end when you've got 23 flowerbeds?

Student: I'd plant them in a pot.[10]

In the middle years, however, the majority of students will be beyond this pre-operational stage, and will be thinking at least in concrete operational terms and in some cases be well on their way to formal operational thinking.

This move from concrete to formal has been described by Collis as making a period of concrete generalization, indicating that students are still heavily influenced by their perception of concrete reality, they are seeking more generalized solutions to problems. As Collis puts it, they can understand that 285 x 694/285 = 491 x 694/491, but they are not yet able to grasp the general (and abstract formula) an/a = bn/b.[11] He describes the thirteen to fifteen-year-old just entering the stage of formal operations this way: "The adolescent at this stage typically accepts the reliability of a rule on the evidence of a few specific positive instances. It does not occur to him to test with counter-examples, look for negative instances or use limiting situations."[12] In other words, the middle years student typically moves too quickly to closure of a problem, and is unwilling to tolerate for long the ambiguity of holding all options open.

In this vein, H. Williams et al. have analyzed the problem used in many science classrooms in which students have to determine that the length of a pendulum governs the period of its swing. They note that, in the middle years, few students understand the logic of the experiment even after they have performed it successfully. As they put it: "We have had students state the principle of the pendulum correctly, then attempt to 'prove' it by demonstration. In the end, they convinced themselves that the mass of the bob determines the pendulum's swing. . . . Even students who have just studied the pendulum and passed a teacher's written test . . . are likely to become confused when asked to perform the experiment independently."[13]

In their school subjects, then, middle years students are thinking largely in terms of concrete operations. In Peel's terms, they are describer thinkers. A minority will not yet have reached even this stage. Another minority will be well on the way to formal operations or explainer thinking. Some, indeed, will already be there. Middle years teachers are likely to meet students at all these stages in any one classroom, but the real world is even more confusing than this. Cognitive development is not a steady,

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uninterrupted movement. It has its ebbs and flows, it moves backwards and forwards. Thus students will demonstrate formal or explainer thinking at some times but not at others. It is now recognized that the context and content of a problem have much to do with the type of thinking displayed by students. Formal or explainer thinking is elicited more readily by some situations than by others. In the words of D. Ausubel: "Abstract thinking . . . generally emerges earlier in science than in social studies because children have more experience manipulating ideas about mass, time and space than about government, social institutions, and historical events."[14] In any case, the stages of thought are not separate and water-tight compartments in which one crosses a clearly-defined boundary line from one to another. Development is rarely static.

The crucial tasks for teachers are to be familiar with developmental theory and research, at least to the point of possessing a working knowledge of it, and to assess their students' levels and organize their work accordingly. There is, of course, no precise instrument by which one can measure students' performance or developmental levels. Diagnosis will be a fairly rough and ready affair, but as long as teachers realize the limitations of diagnosis, they can perform an invaluable service. Here, for example, is one attempt (and it must be emphasized that it <u>is</u> only an attempt and it <u>is</u> rough and ready) to provide a bench-mark for the assessment of students' levels of cognitive development:

Pre-operational	. does not relate the question to the information provided; . does not look for possible contradictions; . centres on one feature only; . is characterized by irreversibility in thought;
↓	
Transitional to concrete operational	. considers more than one feature but is not successful in attempts to relate features; . is uncertain of judgements;
↓	
Concrete operational thinking	. can give organized answer, but it is limited to information given; . compensates one statement by another but is unable to follow through;
↓	
Transitional to formal operational	. goes beyond information given but is not able to follow argument through; . begins to relate variables;
↓	
Formal operational	. can do propositional reasoning; . can go beyond data given; . can question the question;

This assessment, of course, is not an end in itself. But it should lead to at least two important conclusions. First, rather than simply dismissing students' answers, written or spoken, as wrong, teachers should see wrong answers as important clues to what and how students are thinking and to what

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problems they are having. Indeed, there is a good case to be made for designing tests and assignments so they show several levels of thinking; this would help assess students' development. Second, the assessment should lead to reconsideration of teaching strategies and ways of organizing material.

From the type of research described in this chapter, two conclusions can be drawn, one of which may be described as pessimistic, the other as optimistic The pessimistic conclusion is that youngsters' thinking is unsophisticated, due to inherent, psychological and biological limits on their capacities. It assumes that nothing can be done about it until students become more mature. The optimistic conclusion agrees that youngsters' thinking is unsophisticated, but refuses to accept that this is as much as they can do. It argues that students' thinking is heavily influenced by their previous classroom experiences. If students do not demonstrate acceptance of lack of closure, if they cannot work comfortably with multiple interacting systems, if they are describers rather than explainers, then this is, in part, a reflection of what and how they have been taught. As J. S. Bruner has observed: "By school age, children have come to expect quite arbitrary and, from their point of view, meaningless demands to be made upon them by adults — the result, most likely, of the fact that adults often fail to recognize the task of conversion necessary to make their questions have some intrinsic significance for the child."[15] In Piaget's terms, our teaching, and therefore students' learning, has emphasized figurative rather than operative knowledge. We have, so to speak, taught, or tried to teach, students the answers before they have understood the problems. As a result, they have learned to repeat a good deal of information about which they fail to understand the significance.

The key point is to organize teaching so that it interacts with and therefore stimulates development. If teaching lags behind development, nothing is being done to benefit the student; if it is too far ahead of development, the student will not understand it. As K. Lovell puts it, "If one is working within a Piagetian tradition there should not be an exact match between task and cognitive development. Rather the task should be at the +1 level to induce conflict."[16] This idea of working one level (but not much more than one) above the student is parallel to Vygotsky's suggestion, described in chapter 2, that we should always aim to teach between students' levels of actual and potential development.

An example might suggest what this can mean in practice. Here is an answer written by a grade 7 student in Winnipeg to the question, "Why was Ancient Rome <u>not</u> a democracy?" The answer indicates a youngster articulate beyond what might be expected in grade 7, but this very fact helps to demonstrate the point:

> It was not an exact democracy because the Plebians [sic] only had the right to choose and elect officials. They were not really ruling. Individually the Plebians [sic] gained more and more power because of their importance but they still did not rule. Later, all of their rights were printed and called the Twelve Tables. This did not do much to increase their freedom. They did not have a real leader such as Greece had in Cleisthenes or

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> Pericles. Even after acquiring their own assembly the majority of Plebians [sic] were not ruling. Since there was no payment for attending the meetings as there was in Greece the Plebians [sic] couldn't afford to waste time at the meetings and only the rich went. Eventually the rich joined with the aristocrats and formed a new ruling class. Although there still wasn't a democracy most citizens were proud of their government. For under aristocratic rule they had come to conquer most of Europe.

The question is answered in the first sentence: Rome was not an "exact democracy" because the people could only "choose and elect officials." After this opening sentence, however, the essay moves to the Twelve Tables, to leadership and pride in government, so that it loses its initial focus. After a good, clear beginning, the argument wanders. This is perhaps a youngster on the edge of abstract thought, poised on the threshold of explainer thinking.

Having written his essay, the student and his teacher talked about the assignment:

Teacher: You mean that Canada isn't an exact democracy either.
Student: No! Of course Canada is a democracy. Everybody knows that!
Teacher: Yes, but you've said Rome wasn't an exact democracy because people could only choose and elect officials. That's all we do in Canada. For instance, my member of parliament is Mr. X, but I didn't vote for him. The man I voted for lost the election. Is that democracy?
Student: I don't know about that, but everybody knows that Canada is a democracy.
Teacher: Well, what is a democracy anyway?
Student: It is from two Greek words. It means "rule by the people." [The class had previously studied Ancient Greece and this information was in their textbook.]
Teacher: Such as?
Student: Well, Athens.
Teacher: O.K. Now, what about Rome?
Student: Well, Rome was different. Its government wasn't the same as Athens.
Teacher: Yes, but is it like Canada?
Student: I don't know. The question didn't ask about Canada anyway.
Teacher: Well, why do the Russians and the Chinese call themselves more democratic than we are? And Communist East Germany calls itself the German Democratic Republic. And, if you think back to Athens, why don't we run Canada like that?
Student: You couldn't. There's too many people.
Teacher: Yes, but you said it was a democracy.
Student: Well, maybe democracy can mean different things.
Teacher: Exactly.

The dialogue shows a student operating between what Vygotsky called the levels of actual and potential development. And the student's second attempt at the same question shows considerable movement:

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> Whether or not Rome was a democracy depends on your definition of the word democracy. If democracy means people actually ruling, it was not a democracy. If it means people having the right to elect officials, Rome was a democracy. After a long struggle the Plebeians acquired the right to elect Tribunes who would protect them from injustice from the Patricians. Eventually they gained the right to block acts of magistrates or senators. However, this was not a real democracy, for the Plebeians were not actually ruling.
>
> Another important gain was a written statement telling Plebeians their rights. But that didn't give them a democracy. Even after gaining their own assembly and having a Plebeian consul elected, they were not ruling. Since no payment was granted for attendance, Plebeians couldn't afford to waste their time at these meetings and turned to the important business of farming.
>
> Since a democracy requires most people taking part in meetings (and there wasn't even a real democracy in Rome) and the majority of people were Plebeians, only a few of the rich could attend the meetings. The Plebeians, most of them at least, did not use their really non-existant power. The few rich people were not helping them and soon joined with the old aristocrats to form a new ruling class. I really do not think that the Plebeians had any more power than an average Canadian, and Canada is called a democracy. Once again depending on your definition of democracy. The Plebeians started with no power and ended up with virtually no power at all.

In short, while the developmental research tells us what students are currently doing, it does not tell us what they might do in different circumstances.[17] In this regard, Vygotsky's distinction between levels of actual and potential development is crucial, as is his insistence that it is the teacher's job to operate between the two. The big danger in studying the area of developmental research is that it could lead teachers to pace their instruction so that it follows after the process of development rather than interacts with it.

HOW CAN TEACHERS DEAL WITH A WIDE RANGE OF INDIVIDUAL DIFFERENCES?

If dealing with and facilitating the transition from concrete to formal thought is one task of the middle years teacher, then dealing with individual differences is another. Probably in no other age range are differences so pronounced and so noticeable. Whichever aspect of development one cares to choose -- physical, intellectual, social or any other -- we find that middle years youngsters show a greater range of variations than does any other group. This section will concentrate upon what these variations mean for teaching.

The usual response to the problem of teaching such a wide range of students is to ask teachers to individualize instruction. There is nothing wrong, and indeed much that is right, about this advice, but teachers are advised

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all too rarely how to teach in this way. It should be said at the outset that to individualize instruction does not mean that each and every student should be free to pursue his or her own path oblivious to the rest of the class. There is, after all, an authorized curriculum which has to be followed, at least in its general outlines. More important, to leave each student working in isolation from the rest of the class is to neglect all those opportunities which are so important in the middle years for social interaction, for listening to other people's ideas and presenting one's own, for

Individualized teaching is necessary to cope with students' differences in cognitive development, their differing interests, learning styles and emotional characteristics.

benefitting from the give and take of argument and discussion. Psychologists tell us that interaction with peers at this stage of development is vital not only for youngsters' social development but for their intellectual development also, since the capacity to understand other people's viewpoints and to reflect upon one's own produces the dissonance that leads to growth. Thus, it is more desirable to have what Charity James calls "a highly diversified program which allows for individual development within a collaborative social framework"[18] rather than one which has students working individually and in isolation from each other.

Individualized teaching is necessary not only to cope with students' differences in cognitive development, but also with their differing interests, learning styles and emotional characteristics. For example, some will learn more from discussion than they will from lecture; others will learn better from each other than they will from their teachers. They will work at dif-

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ferent speeds and with differing levels of intensity. Individualization of instruction must, therefore, allow certain broad limits, so that students can work at the speed at which they can learn best. This kind of teaching must provide for differing depths of work, allowing some students to pursue a topic more intensively than others might. Finally, it must allow some students on occasion to pursue topics which are not being taken by the rest of the class.

One simple way (surprisingly not used often) of providing for at least some individualization is to give students a written outline of a topic. Such an outline should contain the main headings and subheadings of the topic, references to texts and other sources, time limits, and activities and assignments. It might well include a short simple statement of aims and objectives so that students can see why they are studying a particular topic. Such outlines should contain as much information as necessary for the students for whom it is intended. Some students do not need much help, and will require only a bare summary of headings; some will need more help, and the outline for them should contain in skeleton form all the points necessary so they can complete their work. Here is an example which might be used for a social studies class and which would be used both to introduce and to organize a unit:

Canada and the United States

Rush-Bagot Agreement 1817
- terms
- method of reaching agreement (who were Rush and Bagot?)
- importance
- references: Brown 259; Chafe & Lower 190; McArthur 307-8; Dorland 167; Careless 134; McInnis 197; Lower 176

Oregon Boundary Dispute
- 1818 Treaty
- American and British claims
- 1846 Treaty
- references: Brown 258, 311; Chafe & Lower 302-4; McArthur 313-4; Dorland 140-2; Careless 217-8; Lower 436-7

New Brunswick
- Aroostook War 1838
- Ashburton Treaty 1842
- references: Brown 347; Chafe & Lower 259-60; McArthur 309-12; Dorland 124; Careless 194; Lower 436-7

Washington Treaty 1871
- arguments about fisheries
- arguments about Fenians
- arguments about the "Alabama"
- arguments about San Juan
- terms of the Treaty

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. importance in Canada's development
. references: Brown 463-6; Chafe & Lower 354-6; McArthur 363-4; Dorland 441-2; Careless 298-9; Lower 439-40

A number of points should be made about this outline. First, it is fairly detailed, so that students need only flesh out the points into sentences and paragraphs. Second, it lists a variety of references all of which are available in the classroom. Third, the references vary in sophistication, thus catering to differences in reading levels. Fourth, specific page references are provided so that students do not have to flick unnecessarily through the books, especially since in this topic they have to move backwards and forwards in them. Fifth, the topic is broken down into small manageable sections so that students are not swamped by their task.

Such outlines have many advantages. As already noted in chapter 2, they allow, within certain broad limits, students to move at their own speeds. They provide a good basis upon which students can make their own notes, thus practising some basic skills and avoiding simply copying down from the overhead or the board. They provide an overview of a complete unit so that students can see the "forest for the trees": so often, they do not see the overall organization of a course. They provide a good basis for revision and review: students simply have to look at them to answer one of their favourite questions, "Will it be on the test?" They allow students to plan their work, working ahead if they have other commitments, knowing what they need to do if they have lost ground. The outlines provide the structure and organization that students so often need in the middle years. Above all, such outlines allow students to work at their own speed and depth while, at the same time, meeting certain basic criteria.

Outlines can also provide the basis for independent study. For some students, some of the time, independent study may well be appropriate. Indeed, some authorities recommend that all students should experience it. The term independent study here means the pursuit of a project or an assignment which may last days or even weeks, during which time the student is free from regular class attendance. This may, of course, call for periodic checks or consultations so that the teacher can monitor student progress. It also demands that students have the skills and the aptitudes to work on their own. B. A. Ward has suggested a scheme by which students' readiness for independent study can be assessed. This scheme divides independent study into four components: identifying a topic; outlining what needs to be done; identifyng resources; setting and meeting deadlines.[19] To these should be added a fifth: the ability to communicate and present information. Within each, Ward presents a three-fold classification of the degree of student independence, from: guided study, where the teacher must provide a good deal of structure; to co-operative planning, where teachers and students work together; through to individual pursuit, where the teacher has to do little more than monitor the student's plans. This scheme, as modified here, can be used in the form of a matrix shown in table 4.1.

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TABLE 4.1
A Method of Judging Students' Readiness for Independent Work

	Identifying a topic			Outlining what needs to be done			Identifying Resources			Communicating & presenting information			Setting & meeting deadlines		
	Guide study	Co-op planning	Individual pursuit	Guide study	Co-op planning	Individual pursuit	Guide study	Co-op planning	Individual pursuit	Guide study	Co-op planning	Individual pursuit	Guide study	Co-op planning	Individual pursuit
Student 1			X		X		X					X			X
Student 2	X			X			X				X			X	
Etc.															

Independent study can be organized by using contracts consisting of a detailed outline of work specifying at least the following: (a) a statement of what is to be learned, in language that a student can understand, and often in the form of behavioural objectives; (b) a specification of the ways in which students can demonstrate what they have done, for instance, through essays, reports, tests and so on; (c) a clear statement of how the work will be evaluated; (d) a list of resources to be used; (e) a breakdown of the different steps to be completed; (f) a schedule of periodic checks, or even formal tests (not too far apart); (g) a time-schedule, containing the deadlines for the sub-steps and the final completion of the contract.

Many teachers will remember a time when contracts of this type were used fairly widely. However, they are not generally appropriate for use in the middle years. They should not usually be used for a whole class, because they deny the opportunity for contact with teachers and with fellow students, which is so critical in the middle years. Used with a whole class, contracts too easily turn what should be the give and take of a good classroom into the stifling monotony of sheer paper work. Contracts are good for some students at some times, but they should not become the general approach to middle years teaching.

The same should be said about a more ambitious version of the contract: the learning package. Here, the basic format of the contract is followed but is extended to include much of the information that students will use. A history package, for example, would include selections from historical documents, maps, pictures and various kinds of "raw material" for students.[20]

Individualization of instruction also demands, of course, the use of a variety of assignments and projects. Once certain basic skills and knowledge have been mastered, there is no need for all students to do the same work. If they are studying a novel, a historical topic, something in science or home economics or whatever it might be, assignments should be varied so as to appeal to students' interests, skills, abilities and learning styles. Some of these assignments or projects should draw on skills other than reading or writing. They should allow students to present information by means of drawings, photographs, displays, collages, skits, plays, videotapes, simulations, interviews and so on.

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Some of these assignments, for middle years students especially, should allow for group work. Group discussion, once it rises above the merely trivial, provides the exchange of ideas and conflict of opinions so necessary for cognitive development. In addition, effective group work provides the experience of collaborative social interchange which is so important in

Some assignments should allow for group work.

life generally. One expert, Herbert Thelen, has argued that group work is the most effective vehicle for citizenship education.[21] Here is a brief list of possibilities:

1 Seminar group: Here the seminar method is adapted for use in the middle years. Students do some assigned reading and come prepared to discuss a particular topic or question. The method may involve the group's reporting to the whole class, or not, as appropriate.

2 Project group: This is well known and widely used. Students work together to prepare a report or a project. It usually involves a division of responsibilities within the group involving who does what.

3 Task group: This is somewhat similar to the project group, but involves a shorter-range activity, for example, preparing a response to a particular task during a lesson, interpreting a map or performing an experiment.

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4 Inquiry group: This involves establishing a group to pursue some open-ended inquiry. It might involve a group of students investigating a community problem, for example, and arranging for interviews, visits, newspaper work and so forth.

5 Developmental group: This term is somewhat awkward, but it is used here to indicate the kind of group whose main purpose is to facilitate personal interaction, social development and skill in group processes.

One of the main dilemmas facing teachers who use group work is how to select the group in the first place. Should students make up their own groups or should the groups be assigned by the teacher? The answer is, both. Self-selected groups will work best for some purposes but could suffer from some obvious disadvantages. When friends get together, for instance, the group may become no more than a social occasion. In addition, there is always the risk that certain students will be noticeably excluded -- the middle years can be a time of great social cruelty. The teacher could select groups randomly, asking students to number off, the ones forming a group, the twos another, and so on; or the teacher could engineer the group's makeup more deliberately. Randomly selected groups will provide opportunities for students of differing capacities and aptitudes to work together and, hopefully, to profit from each other, thus combining the benefits of individualization with those of social interaction. Nonetheless, there will be situations in which teachers can very effectively use self-selected groups.

If groups made up of middle years students are to work successfully, the students will need special preparation. At the very least, they could be taught about the roles that people commonly play in groups. Through videotapes, scripts of discussions, skits and the actual experience of group work, for example, they could learn to identify the following roles:

Facilitator
. brings discussion back on to topic
. summarizes
. settles personal arguments
. seeks more information

Initiator
. offers opinions
. raises new points

Encourager
. brings everyone into the discussion
. encourages people to speak
. discourages personal attacks

Clown
. shows off
. tells pointless stories
. interrupts for no reason

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Blocker
- keeps hammering at one point no matter what other people want
- holds up the discussion
- will not agree to reasonable points

Focusser
- brings discussion back on to topic
- clarifies what people mean
- asks tough questions

Dominator
- will not give others a chance to speak
- will not consider other people's opinions

Non-Participant
- says little or nothing (It is important to distinguish between someone who is interested and does not wish to speak from someone who is simply not interested.)

The categories listed above are deliberately simplified for the convenience of students. More elaborate versions are possible. Here, for example, is a more complex list compiled by K. D. Benne and P. Sheats, two experts in group processes:[22]

Group-task roles
- initiator
- contributor
- information/opinion seeker
- information/opinion giver
- orienter
- elaborator
- evaluator/critic
- energizer
- procedural technician

Group-building and maintenance roles
- encourager
- harmonizer
- gatekeeper
- expediter
- standard-setter
- group-setter
- group-observer
- follower

Individual negative roles
- aggressor
- blocker
- recognition-seeker
- self-confessor
- playboy

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. dominator
. individual help-seeker
. special interest pleader

One variation of group work that can be useful in the middle years is peer-teaching, a method in which one student teaches another. There is some interesting evidence showing that when children teach each other, both teacher and learner learn at least as much as they do from adults. This is especially effective when the work is not new but when the task is reinforcing, reviewing or further explaining work that has already been introduced. (For new work, an experienced and capable teacher will probably provide the clearest explanations.) At least as far back as the Renaissance, educational theorists insisted that the best way to learn something is to teach it, a point to which most teachers can testify from their own experience. Thus, instead of seeing the wide range of aptitudes in a classroom as a problem to be coped with, teachers should use the resources at hand. Let the students who are having no difficulty with a piece of work help those who are. Everyone will probably come to understand the work better.[23] Using this resource has the advantages of freeing the teacher for other tasks. Above all, it goes some way to meeting the middle years youngster's need for responsibility, and it provides for some role-experimentation in the class: conventional student roles are transformed. Contemporary society provides all too few opportunities for young adolescents to act out constructive roles. Peer teaching is one way to overcome this deficiency.

It goes without saying that, if teachers are to cater to the wide range of individual differences that exists in the typical middle years classroom, they must have access to and make use of a wide variety of resources. One authorized textbook will not be adequate for all middle years students. For some it will be just right; for others it will be either too easy or too hard. Thus, teachers will need to provide, whenever possible, a range of books, all dealing with the authorized curriculum but pitched at a variety of levels of difficulty. This obviously creates some organizational problems, but these can be easily dealt with by keeping track of which students are using which books and arranging for appropriate assignments. The use of the kind of outline suggested above can be very helpful when using various texts.

Middle years teachers should stock their classrooms with the widest possible range of resources to supplement the textbooks and to cater to students' interests. Students can use a few spare minutes to good advantage by picking up a magazine or a book from a shelf and browsing through it. One of the perennial problems in teaching is what to do with those students who have finished their assigned work while everyone else is still ploughing through it. To assign more work, to tell them to move on to the next unit, is not much of a reward. It helps, therefore, if students have resources they can turn to in the classroom. At the risk of slight exaggeration, middle years teachers should work on the principle of never throwing anything away. Old magazines, paperbacks, discarded library books, games and puzzles: all these can make an invaluable addition to any classroom and

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help to provide the rich variety of resources without which teaching can never be properly individualized.

To add to the variety of resources in their classrooms, middle years teachers should also consider establishing their own information files so that students will have material for research and other projects close at hand. These files could contain such materials as pamphlets, magazine articles and newspaper clippings. Such files have the advantage that they will probably contain more up-to-date material (and more of it) than is to be found in the textbook. Also, students may find this material easier to read: newspapers and magazines, for example, are especially useful for students who have difficulty reading the regular textbooks. Surprisingly, although school librarians often maintain such files, classroom teachers rarely do, even though it is in the classroom that the files would be of most use. Admittedly, this means more work for the teacher, but more of this can be delegated to students; the teacher can charge them with the task of scavenging for information, of clipping newspapers and magazines, and of keeping the files up to date.

The other approach to individualized teaching which should be incorporated into middle years teaching is "mastery learning", as developed by Bloom and Block.[24] Bloom holds that only five to ten percent of students in the typical classroom cannot achieve an A or B grade under appropriate conditions, the most important of which is time. When a class moves through a program as one group, it is obvious that not all of the students will learn as much or as well as others. Students will need different amounts of time to learn material equally well, even when the quality of teaching is high.

In mastery learning, students can demonstrate their achievement in a given topic whenever they choose. Tests are for diagnosis, not for final evaluation. Feedback to the students occurs very rapidly. When mastery is not demonstrated, students receive immediate help. The pace of instruction is adjusted to the student. Individual differences are accepted. As N. Gage puts it, "In the mastery approach, the teacher takes into account differences in ability to understand instruction by organizing his teaching of the same part of the curriculum in various ways. Small group sessions, alternative textbooks, workbooks, programmed instruction, games, and of course, the one-to-one interaction with tutors may help a particular student comprehend what he is to do and learn."[25] Especially appropriate to the middle years is the effect of mastery learning upon the self-concept of students. As the old adage has it, nothing succeeds like success, and the experience of success provided by mastery learning has a profound effect on students' attitudes. The attainment of mastery and its public recognition can only enhance students' self-concept, which is so easily put at risk during the middle years.

There is then, a strong case to be made for the use of individualized instruction by teachers so they can successfully deal with the great range of individual differences to be found in the middle years. There are many ways to accomplish this. It is necessary, however, that teachers combine

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individualization with whole-class teaching. Whole-class teaching is useful for such tasks as imparting information, and teachers can use films and speakers, summarizing and so on. Recent research indicates that whole-class teaching is an effective way of teaching basic skills. At the very latest, whole-class teaching gives students some relief from the monotony of their own company which is forced on them by excessive individualization.

The problem is to find an effective combination of the two approaches: individualiation and whole-class teaching. Teachers will, of course, be their own best judges of how to do this, but research indicates some helpful ways of organizing a course. One, in particular, is J. Renzulli's Enrichment Triad Approach, which, although originally intended for gifted students, can with some modifications, be useful for all students.[26] Renzulli suggests dividing activities into three categories:

Type 1, general exploratory activities, introduces students to topics in which they might become sufficiently interested to wish to pursue them in depth in the third component, individual projects. Such topics might lie inside or outside the regular curriculum, but it is easy to visualize a program where the teacher, in teaching the curriculum, does so in such a way as to interest students in topics they might want to pursue. A well-informed, stimulating teacher could do this simply by suggestion and description. A unit on World War I, for example, could lead to individual projects in such areas as: military technology (machine gun, aeroplane, tank, submarine, etc.); the effect of the war on the role of women; war poems (Owen, Sassoon, etc.); life in the trenches; war art; propaganda; famous people; and so on. As Renzulli suggests, interest can also be stimulated by such techniques as interest centres, field trips, visits by resource people.

Type 2, group training activities, is specifically concerned with the development of thinking and feeling. Renzulli suggests that it consist of training exercises in critical thinking, problem-solving, creativity, value analysis and clarification, brainstorming and so on. The recommendation made above, that middle years students should be given training in group processes, is consistent with this. The overall goal is that students should learn the skills necessary for successful accomplishment of individual projects. At the same time, many of these skills are worthwhile in themselves.

Type 3, individual projects, is self explanatory. Renzulli notes that this type is particularly appropriate for gifted students. It is being argued here, however, that individual projects should be used with all students, es barring exceptional circumstances. In this case, obviously, some students will need far more help and structure than will others.

The attraction of the Renzulli Enrichment Triad Approach is that it provides for an effective combination of whole-class work (types 1 and 2) and of individualized study (type 3), with the added advantage that the distinction is not hard and fast. Individual and small-group work can be incorporated into types 1 and 2, and small-group work (rather than totally individual

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work) can be easily accommodated in type 3. Further, the model provides for many activities and experiences which are particularly appropriate for middle years youngsters, especially in type 2 group training activities.

HOW CAN TEACHERS RESPOND TO STUDENTS' NEEDS?

In chapter 3 the needs of middle years youngsters were described as follows:

- physical needs
- need for achievement and responsibility
- need for status and recognition
- need for security and acceptance
- need for privacy
- need for positive self-image
- need for independence
- need for experimentation and new experiences
- need for imaginativeness
- need for information and knowledge
- need for intellectual skills
- need for aesthetic experiences

Given the far-reaching developmental changes that occur in the middle years, it is not surprising that these needs often interfere with, or at least impinge upon, school learning. Although educational psychologists often separate the cognitive from the affective, as in Bloom's and Krathwohl's well-known taxonomies of educational objectives, in real life the two are inseparably intertwined.[27] Feelings and attitudes cannot be so easily separated from knowledge, and this is especially true in the middle years, when youngsters have not yet learned to put their feelings to one side in order to concentrate on the matter in hand. Adults can usually separate their feelings about an instructor as a person from the knowledge that the instructor is imparting; middle years youngsters, by contrast, rarely can. Their feelings about school, about teachers, about what is happening in their lives, are powerful influences upon their readiness and ability to do school work.

As has already been noted, the middle years are an age when youngsters often have to choose between school and peer group, when questions of appearance, self-image and status loom large. It is also an age of questioning, of testing authority, of beginning to think about the shape of one's life. In short, the developmental changes that take place in the middle years have to be taken into account by teachers. If these changes are ignored, learning will suffer. In this context, it is useful to see the stages of adolescence as comprising a series of "developmental tasks," as suggested by R. J. Havighurst, each of which has to be successfully completed before the next one can be undertaken. Havighurst described these developmental tasks as follows: (1) achieving new and more mature relations with age-mates of both sexes; (2) achieving a masculine or feminine social role; (3) accepting one's physique and using the body effectively; (4) achieving emotional independence of parents and other adults; (5) preparing for marriage and family

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life; (6) preparing for an economic career; (7) acquiring a set of values and an ethical system as a guide to behaviour; (8) desiring and achieving socially responsible behaviour. It should be noted that Havighurst was describing the developmental tasks which he saw as appropriate to the total stage of adolescence, which he defined as lasting until eighteen years of age. The tasks cannot simply be applied to the middle years without modification. Nonetheless, they are of some relevance to middle years teachers.[28]

What then is to be done? At the very least, teachers must be familiar with the facts of adolescent development. They must keep up to date with the findings of the psychologists and physiologists who are studying adolescence. Teachers tend to concern themselves with the subjects that they have to teach and with practical ways of enhancing their teaching, dismissing most other knowledge as "theoretical." However, the research literature on adolescence is far from purely theoretical. Keeping up to date with it should form a vital part of a middle years teacher's professional activities. As the famous psychologist, Kurt Lewin, once remarked, "There is nothing so practical as a good theory." Teachers must maintain some scepticism, however, so that they can distinguish between a theory (or a supposition) and a fact. The psychology of adolescence is not yet so scientific that its findings can be automatically taken on trust.

Teachers must also be aware of the various forms of students' needs, as presented in chapter 3, and they must be able to assess their students' behaviour (or misbehaviour) in the context of these needs. Diagnosis is a crucial element of middle years teaching. Students' behaviour, their work and accomplishments, must be seen not simply as right or wrong, good or bad, but also as symptomatic, that is, as the outward signs of developmental changes.

Generally, teachers must be as aware as possible of their students as people, not simply as pupils that they see for forty minutes every day during class. This, of course, can be extremely difficult when the day is divided into seven or eight periods, each taught by a different teacher; hence, the importance of team teaching in the middle years, for this allows teachers to interact fairly intensively with their students and with each other.

Teachers should do their best to know something of their students' likes and dislikes, their interests, their special skills and accomplishments, their family backgrounds, and so on. Of course, this does not mean mounting an inquisition into students' private lives; teachers should respect students' and parents' rights to privacy. Much can be accomplished, however, by the casual conversation before, during and after class. There are many opportunities during the school day for a quiet word here and there. There is nothing wrong, and much that is right, for example, with setting aside a few minutes at the beginning of class for a discussion of a program on television the night before, or an article in the newspaper, or a school event. There is everything to be said for a teacher's devoting some time to watching a school team, a concert or a display, and talking to the students who

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were involved. "That was a good game you played last night"; "I saw your art-work on display"; "I saw your mother on TV yesterday" — such comments can have an effect. They demonstrate an interest, they reveal that the teacher is aware of students as people with lives to live outside the school.

Teachers should also make a particular effort to compliment or congratulate students. All too often in schools, we emphasize the negative. We correct mistakes, we rebuke misbehaviour, we reprimand. It has been found in some cases that school report cards contain more negative than positive comments. Though we rebuke the bad, however, we do not so often praise the good. There are many opportunities to praise students during a school day. It must be stressed that praise should not be reserved for the "good" students. It is equally important for others: the incurably restless student who actually sits still for thirty minutes; the non-stop talker who keeps quiet; the notorious interrupter who stops interrupting -- all should be rewarded with a comment to show that they have been positively noticed.

Teachers should watch out for unusual behaviour and quietly seek out its causes. What about that student who never speaks to anyone and is never spoken to, for instance? Is he or she solitary from choice and content to remain so? Or is there something that needs correcting? Perhaps it is a case of classroom cruelty. There are middle years students who find school intensely painful because they are socially rejected.

Above all, teachers should be clearly available. They should not lock themselves in the staffroom. Like anyone else, and perhaps more than most, teachers need some peace and quiet during their working day, but this legitimate need should be balanced with availability to students. When classes change, teachers should be in the corridors, ready to exchange greetings with students, and at the same time, be ready to prevent unruly behaviour. They should — as many do — work with students in extra-curricular settings, thus revealing another side of their personalities to students.

Much of what is suggested teachers should do to respond to students' needs comes under what has been called "walking advisement," characterized by interactions such as informal, unplanned conversations that occur as teachers and students meet each other in and out of classrooms. This cannot, however, be left completely to chance; it should also be deliberately organized. Every middle years student should have at least one teacher to whom he or she can go for help and advice. The best-known and probably the most effective way of providing for this is through a teacher-adviser system, which is fully discussed in chapter 5. Another is through the use of student journals. Here students keep a daily journal in which they may enter anything they choose: what they have been doing, how they are

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feeling, something they have read or heard. The journal is not marked for grammar or style; in fact, it is not marked at all. It is simply accepted as a student's personal comment. It is for the eyes of the student and the teacher-adviser only and so must be kept in a safe place and must be treated as confidential. Once they are convinced that confidentiality is guaranteed, most students do not object to keeping such journals, nor do they object to their teacher-advisers seeing them. The journals can provide useful clues and insights into what is happening in students' lives.

The important point is that teachers should take seriously the diagnosis of their students' needs; they ought to work out ways to accomplish this diagnosis and deliberately to assess their own performance. At the end of the school day, for example, it is worth teachers asking themselves how many students they have spoken to that day, how many on non-academic matters, how many they have reprimanded, how many they have praised or encouraged. In fact, some authorities advocate formalizing this into a system of checkmarks or diaries. Beyond the many informal opportunities for such interaction that occur during the course of the school day, teachers should also select teaching strategies which, as well as being pedagogically effective, will speak to the needs of middle years students. In particular, they should use teaching strategies which promote students' active involvement in their learning. At the same time, they should choose these strategies from as wide a repertoire as possible.

HOW CAN TEACHERS DEAL WITH A WIDE RANGE OF TEACHING STRATEGIES?

If instruction is to be individualized and fitted to the range of learning styles exhibited by middle years students, then clearly it is necessary to use a wide range of teaching strategies. In any case, different topics will often call for different teaching methods. A new topic might be best introduced by a clear and interesting lecture; its exploration and development could be carried out by discussion and group work; its review accomplished by a film; and so on. Anyone who has taught for more than a few months knows that what worked yesterday may not work today or tomorrow. In the present state of the art, it is impossible to forecast what will work from one day or one class to the next. The only viable solution is for teachers to keep constantly aware of student reactions, to assess their own teaching as it unfolds, and to have alternative strategies in store to which they can resort.

To elaborate on this would require a book to itself. All that can be done here is to draw attention to the necessity for teachers to have as wide a repertoire of teaching strategies as possible. They should see themselves as musicians who never know from one engagement to the next what type of music they will be expected to play. Bruce Joyce has presented a useful grouping of "models of teaching" with which all middle years teachers should be familiar.[29] Table 4.2 shows Joyce's models of teaching.

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TABLE 4.2
Model of Teaching (Bruce Joyce)

Model	Major Theorist	Characteristics
Information-processing:		
Inductive thinking Inquiry training	Hilda Taba Richard Suchman	Designed primarily for development of inductive mental processes and academic reasoning or theory building but these capacities are useful for personal and social goals as well.
Science inquiry	Joseph J. Schwab (also much of the Curriculum Reform Movement of the 1960s)	Designed to teach the research system of a discipline, but also expected to have effects in other domains (sociological methods may be taught in order to increase social understanding and social problem-solving).
Concept attainment	Jerome Bruner	Designed primarily to develop inductive reasoning, but also for concept development and analysis.
Developmental	Jean Piaget Irving Sigel Edmund Sullivan	Designed to increase general intellectual development, especially logical reasoning, but can be applied to social and moral development as well (see Kohlberg, 1966).
Advance organizer	David Ausubel	Designed to increase the efficiency of information-processing capacities to meaningfully absorb related bodies of knowledge.
Personal:		
Nondirective	Carl Rogers	Emphasis on building the capacity for personal development in terms of self-awareness, understanding, autonomy, and self-concept.
Awareness training	Fritz Perls	Increasing one's capacity for self-exploration and self-awareness. Much emphasis on development of interpersonal awareness and understanding as well as body and sensory awareness.
Synectics	William Gordon	Personal development of creativity and creative problem-solving.
Conceptual systems	David Hunt	Designed to increase personal complexity and flexibility.
Social:		
Group investigation	Herbert Thelen John Dewey	Development of skills for participation in democratic social process through combined emphasis on interpersonal (group) skills and academic-inquiry skills. Aspects of personal development.
Classroom meeting (social problem-solving)	William Glasser	Development of self-understanding and responsibility to oneself and one's social group.
Social inquiry	Byron Massialas Benjamin Cox	Social problem-solving, primarily through academic inquiry and logical reasoning.
Laboratory method	National Training Laboratory (NTL) Bethel, Maine	Development of interpersonal and group skills and, through this, personal awareness and flexibility.
Jurisprudential	Donald Oliver James P. Shaver	Designed primarily to teach the jurisprudential frame of reference as a way of thinking about and resolving social issues.
Role playing	Fannie Shaftel George Shaftel	Designed to induce students to inquire into personal and social values, with their own behaviour and values becoming the source of their inquiry.
Social simulation	Sarane Boocock	Designed to help students experience various social processes and realities and to examine their own reactions to them.

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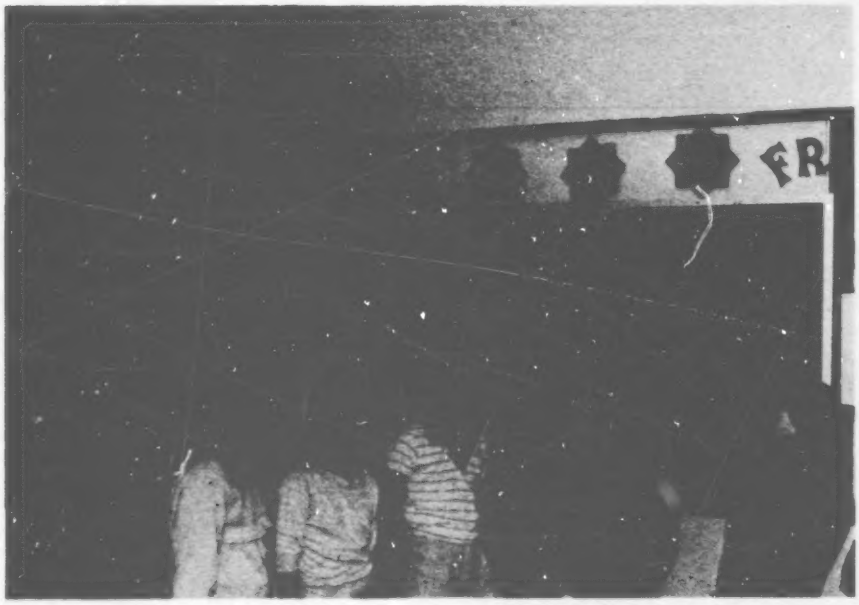
Familiarity with as many of these models as possible will go a long way to ensuring that teachers can cater to differences in learning styles and to the wide range of individual differences and could form the basis of a very useful professional development program.

HOW CAN TEACHERS ORGANIZE ACTIVE LEARNING?

Whatever method, or combination of methods, listed in table 4.2 is used, it is crucial that teachers make sure it connects with students. For instance, many students are still thinking in concrete-operational terms; in these cases, it would be valuable for teachers to choose models incorporating such techniques as role-playing, simulation and field trips. The model chosen should also provoke involvement and activity. The method must do something for the students' minds, to engage their curiosity, to cause them to apply



Whatever model of teaching is chosen, it should provoke involvement and activity.

their powers and, indeed, to extend them. This does not mean that some teaching techniques are by definition good and others bad. The quality of teaching does not lie so much in the specific techniques that are chosen, but in the spirit that informs them. Massialas and Cox make a useful distinction between "method" and "technique." Techniques describe "practices and approaches used in the classroom," for example, lecturing, group-work, library-work, films and so on. Method, on the other hand, is defined as "the overarching attitude the teacher takes towards knowledge, the materials at hand, the learning situation, and the roles that he and his students are to perform."[30]

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There is some evidence that method, in this sense, can make a difference. Sarah Lightfoot, for example, in her fascinating study, "Politics and Reasoning Through the Eyes of Children and Teachers," has argued that teachers' world views shape their philosophies which, in turn, shape their conceptions of good teaching and hence influence what they do in their classrooms.[31] She describes two teachers, one of whom could best be described as conservative, the other as mildly radical. The first, Teacher A, felt that "the system" was generally fair and open and that people could succeed within it if they wanted to. She was critical of "permissiveness" and "lack of standards" and believed that much could be done if only people would work and apply themselves. Teacher B, on the other hand, was less optimistic. She saw "the system" as essentially unjust, rewarding the privileged and penalizing the unprivileged. For her the important thing was not to do well in the system (for it was by definition impossible for most people anyway), but to change it. These views translated themselves into classroom practice. Teacher A, for example, with her belief in hard work and getting ahead, emphasized orderliness, decorum, authority. Teacher B, although by no means a Summerhill disciple, gave more attention to student-initiated activities and to student participation. Thus, for example, students spent more time working at their desks on their own for Teacher A than they did for Teacher B. Lightfoot found that these patterns revealed themselves in the students' behaviour: "The approach and responsiveness of the children . . . reflected the educational goals and political philosophies that were unconsciously and explicitly expressed by their teachers."[32] In brief, she found the students of Teacher B to be more creative, discriminating, confident and critical.

It should be emphasized that Teacher B was not a "permissive" teacher, nor could she be described as a follower of "progressive education," as that term has come to be generally understood. Within her classroom, she maintained certain procedures and a certain structure. But within this, she gave her students a fair amount of autonomy and of activity. Neville Bennett's research in England suggests that the more "formal" the teaching, the more students progress. In some quarters this has been interpreted as evidence for a return to traditional practices (although one should add it is not always clear just what they were). Often overlooked is Bennett's discussion of an "informal" classroom in which students did very well academically. His conclusion is worth quoting: "Although the classroom was evidently orientated towards informal practices the content of the curriculum was clearly organized and well structured. This would seem to highlight a distinction between how the learning environment is structured, on the one hand, and the emphasis and structure of curriculum content, on the other."[33] Lightfoot's Teacher B would seem to fit this pattern perfectly and nicely exemplifies Bennett's distinction between informality in the learning environment and formality in the structure of curriculum. And in this is to be found an important message for the middle years teacher: to advocate discussion, simulation, role-playing, in short, to urge the importance of experiential, active learning is not to preach a message of "anything goes."

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Recent research points to time on task as the most important influence on students' learning, and in some quarters this has been interpreted as a call for a greater emphasis on seatwork, on drill, on workbooks. Clearly, for some tasks in some circumstances, recitation and drill may well be appropriate and effective, but to urge the importance of the amount of time students spend on task is not to urge a return to old-style didactic teaching. John Bremer described it well when he said that the job of teachers is twofold: first, to create order, and then to create disorder. The first is necessary because everyone, especially a middle years child, needs some kindn of framework within which to operate. If a framework is all there is, however, there will be little learning. The framework will become a cage. Thus, the teacher needs also to create disorder within the wider framework, to raise questions, to introduce dissonances, to set problems — in short, to create the conditions within which students will begin to use their minds actively.

All too often, however, the operating assumption in many classrooms seems to be that children do not know anything. To become informed, it is assumed, is why children are compelled to attend school, and this usually means learning what their teachers already know. Certainly, acquiring knowledge s an important part of education. No one can properly be called educated if he or she knows nothing. At the same time, it is important for us to remember that knowledge itself is only a part of education, not the whole of it. A. N. Whitehead's dictum is rather strong, but it is worth remembering: "The merely well-informed man is the most useless bore on God's earth." Teaching can be said to consist of information-giving and problem-solving but too often the first excludes the second.

The crucial task, then, is too easily seen as teachers giving children useful knowledge. At best, what children do know -- be it about licence-plates, war-games, animals, music, sports or whatever -- is seen as inferior knowledge. After all, if it were not inferior, it would be on the curriculum! The classic example, of course, is to be found in Hard Times, when Mr. Gradgrind proceeds to teach Sissy Jupe the definition of a horse, despite the fact that she has known horses since she was a baby. What she knew, however, was not worth knowing until it had been restated in school terms. We can laugh at Dickens's satire, but, unfortunately, our own practices ofte come uncomfortably close, with our emphasis on copying from the overhead projector, on answering short-answer questions, or on filling in worksheets that rarely go beyond the textbook.

This assumption that teachers must feed knowledge to students is misguided on two counts. First, it automatically downgrades the out-of-school experiences of students. Think, for instance, of the implications of that all-too-frequent teacher response to a student answer: "No, that's not really what I'm thinking of." What the student has to say is not all that important; it is what the teacher thinks that matters. This is poor teaching by any standard. In the middle years, it is deadly. The whole point is that students should learn to examine a problem, to look at a range of viewpoints, to speak their minds, not to sit like the R.C.A. Victor dog waiting for "his master's voice."

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Second, it ignores the obvious fact that, thanks to the mass media and the increasing mobility of families, children in fat know a surprising amount. James Coleman has distinguished between an information-poor and on information-rich society, pointing out chat schools emerged in the former and served to provide the young with a window on the world.[34] In an information-poor society the school is a major source of information. A hundred years ago (or less), for example, it was largely in school that youngsters found out about the wider world in which they lived. Thus, schools served an expository, information-dispensing function. Today, however, we live in an information-rich society in which the young get vast amounts of information from non-school sources. Despite this shift, the school continues to function above all as a dispenser of information. To some extent, of course, it must do so, and especially to provide information which rarely appears in the mass media, but not to the exclusion of its problem-posing role.

Part of the solution is to redefine the role of students. Students should no longer be perceived as the more or less passive recipients of someone else's information; they should understand that their own ideas are worth examining. Unless they refuse to play the school game, students quickly come to see themselves as consumers of information. Hence that all-too-familiar question: "Will this be on the test?"

We need to consider seriously the implications of the following definition of relevance: "Relevance is not a matter of adapting a subject to the apparent interests of a pupil on to the apparent fashions of the amount. Relevance is achieved by assuming that a pupil or student has something to contribute to the subject. Relevance at its deepest has nothing to do with subject matter; it has to do with the status of the learner in relation to what is being learned."[35] Assuming that a student has something to contribute can work wonders. However, this assumption should not be made as a matter of blind faith. Obviously, classroom climate and quality of teacher-student relationships are vital. There are, generally speaking, three ingredients in successful teaching: expertise in one's subject, pedagogical skill and empathy with students. If this last quality is missing, and it is especially important in the middle years, then students will be unwilling to contribute much of anything.

It is essential, then, that teachers organize their work in terms of problems to be explored (not solved, but explored) rather than facts to be learned. The following guidelines should be kept in mind:

- Students should see the point and significance of what they are doing;
- All new learning should be based upon old;
- Contact should be established with concrete reality and/or experience;
- There should be frequent interchange of thought and ideas with others;
- There should always be some element of choice for students;
- Situations should be presented in such a way that they cannot be readily explained so that students will be required to ponder the question;

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. Questions, problems, dilemmas should be as open-ended as possible;
. Students should become actively involved in their learning, rather than be passive recipients of instructions.

All of what has been said above has been well summarized by Northrop Frye in one brief sentence: "The difference between a good and a mediocre teacher lies mainly in the emphasis the former puts on the exploring part of the mind. . . ."[36]

It might be useful to see what this can mean in terms of teaching strategies. Imagine that you have to teach a lesson dealing with the location of cities. For most of us the temptation would be to prepare a talk, illustrate it with slides, pictures and maps, and present it to the class. We would, no doubt, follow the talk up with discussion, questions, perhaps an assignment. This is teaching as most people conceive of it and it is perhaps the most commonly used strategy. Its only serious rival is the worksheet and the giving of notes via the overhead projector.

There is, however, a very different way of approaching such a lesson: rather than preparing a presentation, give the students a map on which are marked natural features (rivers, mountains, etc.) and resources (wheat, cattle, iron, etc.). The map can represent either an imaginary area or some part of the world with which they are unfamiliar. Now ask the students to put six cities on this map and to give their reasons for their choice of locations. Once this is done, take up their answers. Who has located the cities where? For what reasons? Before you know it, you will have filled the blackboard with reasons. The reasons can then be classified under headings: economic, strategic, historical and so forth. If the map had represented an area they knew, students could compare their locations with the actual locations and examine the reasons for any discrepancies. The reasons for the locations of cities have still been taught, and the students have taught themselves and each other. There are other advantages: the students have used some inquiry and analysis skills in the process; they have found that they know more than they realized; they have developed some confidence in their own powers; they may also have learned to be a little more creative, to guess intelligently, to use intuition.

Take another example, suppose you are asked to teach a class of grade sevens about the Greek city-state. Begin by asking about hermits. Do they know what a hermit is? Give them some of history's more entertaining examples: St. Simeon Stylites is one. Why do most people not wish to be hermits? What are the advantages of living in communities? Are men and women "political" animals, (i.e., polis-loving) as Aristotle stated? What kinds of communities can the youngsters think of? The city-state was one form of community. How does the city-state compare with modern Canada? Why would Aristotle or Plato deny that Canada (or Winnipeg or Brandon or almost any modern town) was a true community? Would they be right? And so the discussion proceeds. As in the example where students located cities, the youngsters are being asked to draw upon and use what they already know. They are being encouraged to speculate, to guess intelligently, they are being "told" that divergent and evaluative thought is perfectly legitimate.

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These two examples represent the kinds of teaching strategies we should be using in the middle years. They embody two key principles: the need to translate materials into terms that students can work with at their particular level of development; and, the need to organize teaching so that it promotes students' active involvement, which, it should be emphasized, need not mean physical movement but does mean the application and extension of their powers.

HOW CAN TEACHERS COMBINE CHILD-CENTRED AND SUBJECT-CENTRED APPROACHES TO LEARNING?

It has become customary over the years to contrast child-centred and subject-centred approaches to teaching. The first, child-centred, advocates that children become the centre of all teaching with a curriculum organized around their interests and needs. The second, subject-centred, advocates that formal subject-matter (i.e., academic disciplines) be taught to children whether they like it, and are interested in it, or not.[37] As in so much educational debate, both positions have often been exaggerated and one has often distorted the other. For instance, one comment we often hear is that we should teach children, not subjects, as though we could teach one without the other. The children have to be taught something, presumably subjects or some combination of them. Perhaps the best way to approach this dilemma is to imagine complete child-centredness and complete subject-centredness as the two extremes of a continuum, then the task is not to adopt one or the other but to find the most suitable position between them.

Nonetheless, there is some pressure for child-centred approaches for middle years teaching, and this is based on an argument that middle years students are not yet ready for the study of formal subjects because their level of cognitive development is not high enough. At its most extreme, this view advocates the rejection of curriculum in any organized sense, arguing that everything must be based on students' interests and expressed needs and that teachers must constantly be ready to seize upon the "teachable" moment! The emphasis given by middle years educators to youngsters' development as the central aim of middle years education lends support to this, for if development is all important, then presumably it does not matter what is taught, as long as students' development progresses.

To some extent, this extreme is a valid reaction to the traditional middle years curriculum, which was dominated by formal subjects. It is, however, inadequate for today because it ignores the fact that students do not live in a vacuum but in a society. The central question concerning curriculum remains today, as it was when Herbert Spencer first posed it: "What knowledge is of most worth?" Middle years educators cannot avoid this question by merely appealing to the importance of development.

Even a cursory glance at a newspaper, for example, shows that a wide range of general knowledge is needed before a person can understand it properly; one needs to know some history, geography, economics, politics and literature to name just a few subjects. Society, in fact, depends upon a sort of

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cultural shorthand which one has to learn: "It's worse than Hitler"; "It's like 1984"; "Who do you think you are — Shakespeare?" Such comments obviously assume at least a passing knowledge if the allusions are to be understood.

There is a strong case to be made for the inclusion of knowledge about Canada in the curriculum at all levels, including the middle years. If students are to understand and contribute to their own society, they obviously should know something about it, and this cannot be left until the end of their school careers. It is especially important that specifically Canadian material be made part of the curriculum because of the relative lack of Canadian content in the books, magazines, television and radio programs and the music enjoyed by most middle years students.

In any case, education is concerned with the widening of students' horizons, with initiating students into and introducing them to areas of knowledge they would not otherwise encounter. To base a curriculum only on students' interests is to ignore the importance of education in creating and stimulating new interests. It is simply not true to say, for example, that ancient or medieval history is irrelevant or inappropriate to middle years students. Properly taught, it can arouse their curiosity, show them different ways of life, introduce them to a universe of interesting anecdotes and episodes, and lead them to think more reflectively about the things they take for granted.

No child is too young for this, and television, films and comic books all introduce even very young children to a universe of knowledge. Middle years students are especially ready for it because of their growing intellectual powers and their growing capacity for abstraction and reflection. Early adolescence is a period when youngsters tentatively begin to form conclusions, to speculate about the world, to philosophize. They are, therefore, especially ready to tackle academic subject matter.

This is not to say, of course, that we should simply force subject-matter down their throats. Child-centred advocates are correct to attack the stultifying way in which the subjects were (and are) often taught to youngsters. History or science or literature, badly taught, will not appeal to middle years students. An undiluted diet of Shakespeare or Beethoven is not likely to arouse their interest. To force too much too soon will only provoke resistance or apathy.

One of the basic facts about the middle years is that they are transitional. It is very important to keep this in mind when considering the polarity between the child-centred and subject-centred approaches: the middle years lie between the child-centredness of the elementary grades and the subject-centredness of the senior high school. The task of the middle years teacher, therefore, is to combine the best of both. The secret in doing this lies in the combination of three elements of teaching: course design, teaching strategies and resources. First, subject-matter should be organized into terms that students can understand so that they can, so to speak,

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see the forest despite the trees. In Entwistle's words, teachers should "begin by identifying the key concepts and principles in a subject and illustrating these through . . . simple, concrete, uncomplicated experience."[38] One might quarrel with the use of the word "uncomplicated," but the general point remains valid. Indeed, it applies equally well to the second element, the design and selection of teaching strategies, which, as argued earlier, in the middle years, should particularly seek to make the abstractions of subject-matter concretely intelligible, while at the same time promoting students' active involvement in their learning. Third, teachers ought to have available and to use as wide a range of resources, at as many different levels of intensity and complexity, as possible.

The middle years teacher should, therefore, be a special kind of person. He or she should see it as a special responsibility to initiate students into knowledge and to whet their appetites for it. Given even minimal encouragement, middle years youngsters display a voracious appetite for facts. They want to know how things work, how events took place, what people were and are like. Thus, teachers should themselves possess a wide general knowledge. They should be able to make connections between subjects, they must display a lively intellectual curiosity and an interest in reading. In many ways, teachers act as models for their students and it is important in the middle years that they are able both to satisfy and to stimulate students' intellectual interests.

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5. THE MIDDLE YEARS PROGRAM

HOW CAN THE PROGRAM BE RELATED TO STUDENTS' NEEDS?

It should be emphasized at the outset that there is no one program which can be hailed as the definitive middle years approach. At best, we can establish basic principles, guidelines, criteria; how these are translated into educational practices must depend upon local conditions. It is obvious that what works in one area or one school will not necessarily work in another. One of the fundamental tenets of middle years education is that youngsters differ widely from one another and, consequently, there is a wide range of learning styles to be considered. It follows, therefore, that there can be no one royal road to establishing a successful middle years program.

The key criterion is that any middle years program must be designed to address the needs of middle years students. A discussion of these needs appears in chapter 3. In outline, they are as follows:

- physical needs
- need for achievement and responsibility
- need for status and recognition
- need for security and acceptance
- need for privacy
- need for positive self-image
- need for independence
- need for experimentation and new experiences
- need for imaginativeness
- need for information and knowledge
- need for intellectual skills
- need for aesthetic experiences

Some educators, in emphasizing students' needs, advocate a child-centred approach (as opposed to a subject-centred approach) as the central defining characteristic of middle years education. Those advocating the child-centred approach see the junior high school as suffering from an overdose of subject matter, as the victim of excessive and premature subject specialization in which students are forced to learn material in which they have no interest and which they do not understand. The middle school is seen as the antidote to all this, as a place where children are seen as more important than subjects are, where children's needs and interests are the determinants of educational practice. As already argued in chapter 4, this contrast between child-centred and subject-centred education is both overdrawn and

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and dangerous. The real point of middle years education is not to replace one approach with the other but to form a suitable balance between the two.

Students' needs are obviously important. If they are ignored, then neither teaching nor learning will be particularly effective. To agree that students' needs must be addressed, however, says little or nothing about which subject matter is best suited for the task. In their work in inner-city schools, for example, M. Fantini and G. Weinstein identified students' needs as recurring in three clusters which they described as: the need for connectedness, for a connection with others and the world at large, for a grasp of where one fits in the scheme of things; the need for an acceptable self-image; and, the need to feel that one has some control over one's own life.[1] This explanation of students' needs, however, says nothing about what the actual content of a program should be. For some students, for example, the need for connectedness might be met by a carefully planned program of social experiences, for others it might be met by some kind of community action program, for others it could be met by the study of appropriate literature.

Further, the argument for a child-centred approach ignores the reality that, like everyone else, middle years youngsters live in a society and will need to know certain things, both for their own survival and for the successful functioning of society. It is often during the middle years that youngsters first begin to experience, first-hand, the demands and constraints of society as they begin to experiment with adult pursuits such as smoking and drinking, for instance; some may perhaps fall foul of the law during these years. Thus, during the middle years, youngsters need to learn something about law, politics and psychology.

Many youngsters in the middle years display a voracious appetite for knowledge. Properly encouraged, appropriately stimulated, they can collect a vast number of facts (like stamps or baseball cards, for instance). We do a grave disservice to middle years youngsters by ignoring this tendency and by imagining that they are interested only in the local, the immediate, the personal. As Charity James has noted, the middle years are a period of interest in myth and fantasy, of exploring inwardly and outwardly, of imagination and curiosity.[2] These years are a particularly appropriate time to introduce youngsters to as wide a range of knowledge as possible.

In most instances, middle years educators have recognized this capacity in their plans and programs, if not always in their rhetoric. Most middle years programs, for example, allow substantial time for something variously called "core," "knowledge," "general studies" or some similar title. In fact, the majority of middle years programs consist of three components: general studies; learning skills; personal development. In practice, of course, it is not at all easy to separate these three components. Learning skills cannot be taught or learned in a vacuum but only through the medium or in the context of subject matter. One basic skill to be learned, for example, is the ability to think in an organized, rational fashion, but in learning this skill, a student obviously has to think about something, be it mathematics, history or whatever. Indeed, this example suggests that the category of personal development is also closely related to the other two,

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for the acquisition of a skill may work wonders for a student's self-concept. And knowledge of social studies or literature, properly taught, can enhance students' personal development. Of course, good teachers, no matter what they are teaching, are attentive to their students' personal development, especially in the middle years. This three-fold classification, then, of general studies, learning skills and personal development, should not be thought of as three separate curricular blocks but rather as three essential areas which a school program should cover, however it may be organized.

WHY TEACH GENERAL STUDIES?

In Manitoba, the general studies component of the curriculum is decided largely -- though not completely -- at the provincial level. It is the Department of Education that specifies what subject matter should be taught in the province's classrooms, both by designing curricula and by selecting and authorizing textbooks. To this extent, then, the "academic" component of the program is provincially regulated. At the same time, however, this provincial authority allows for a good deal of school autonomy. First, the Department of Education stipulates what is to be done; the schools decide how it is done. Second, the curriculum is drawn up at three levels, the first level being the most general and the third level being the most specific. Thus, a school, if it chooses to operate at the first level, can maximize its autonomy. Third, the curriculum provides for a 70-30 division of time, so that schools have 30 percent of the school year for activities of their own choosing. And, of course, no system is so well-regulated as to prevent teachers doing what they want to do in their classrooms, at least within very broad limits. Even though 70 percent of classroom time is to be devoted to the provincially determined curriculum, the crucial point about middle years education is, as I have argued in chapter 4, not so much <u>what</u> is to be taught but <u>how</u> it is to be taught. Keeping this in mind, it is useful here to present a list of the characteristics of desirable middle years teachers:

- All other things being equal, one activity is more worthwhile than another if it permits children to make informed choices in carrying out the activity and to reflect on the consequences of their choices.
- All other things being equal, one activity is more worthwhile than another if it assigns to students active, rather than passive, roles in the learning situation.
- All other things being equal, one activity is more worthwhile than another if it asks students to engage in inquiry into ideas, application of intellectual processes, or current problems, either personal or social.
- All other things being equal, one activity is more worthwhile than another if it involves children with realia (i.e., real objects, materials and artifacts).
- All other things being equal, one activity is more worthwhile than another if completion of the activity may be accomplished successfully by children at several different levels of ability.

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- All other things being equal, one activity is more worthwhile than another if it asks students to examine in a new setting an idea, an application of an intellectual process, or a current problem which has been previously studied.
- All other things being equal, one activity is more worthwhile than another if it requires students to examine topics or issues that citizens in our society do not normally examine -- and that are typically ignored by the major communications media in the nation.
- All other things being equal, one activity is more worthwhile than another if it involves students and faculty members in "risk" taking -- not a risk of life or limb, but a risk of success or failure.
- All other things being equal, one activity is more worthwhile than another if it requires students to rewrite, rehearse, and polish their initial efforts.
- All other things being equal, one activity is more worthwhile than another if it involves students in the application and mastery of meaningful rules, standards, or disciplines.
- All other things being equal, one activity is more worthwhile than another if it gives students a chance to share the planning, the carrying out of a plan, or the results of an activity with others.
- All other things being equal, one activity is more worthwhile than another if it is relevant to the expressed purposes of the students.[3]

Integration

Many middle years educators advocate the integration of subjects and some teachers and schools are beginning to move in this direction. This is not to say that integration is a defining characteristic of middle years education, only that it is an option that should be considered. Integration, of course, means different things to different people, and any school thinking of adopting it needs to consider carefully which version it intends to pursue.

We can distinguish four approaches to the question of integration: the field of knowledge approach; the thematic approach; the related subjects approach; the organizing discipline approach. The first, the field of knowledge approach, is the most far-reaching, involving a radical reconstruction of the existing curriculum. It rejects the conventional divisions among subjects on the grounds that they have largely outlived their usefulness and unnecessarily exclude important areas of the sweep of human knowledge. Probably the best-known and certainly the most carefully worked out example of this approach is that of the British philosopher, Paul Hirst. He suggests, in place of the conventional curriculum, division of subject-matter to contain: formal logic and mathematics; physical sciences; awareness and understanding of our own and others' minds; moral judgement and awareness; aesthetic experience; religion; philosophical understanding.[4] This approach to the reorganization of knowledge is too complex a subject to be discussed here, but it may be said, briefly, that Hirst sees these seven categories as distinct "forms of knowledge" in which students should be initiated if they are to be truly and broadly educated. To adopt this approach, or some ver-

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sion of it, would clearly make it possible for teachers to make connections among subjects more easily than is now the case. Although it would involve drastic reorganization, the existing provincial curriculum could be fitted into these seven categories. This would, indeed, be a root-and-branch change, however, and may well be more than most people wish to undertake.

A second approach to integration, though still far-reaching, is less radical, and this is the thematic approach. The essential argument for this approach is that conventional subject-matter divisions do not reflect and are not consistent with the ways youngsters think and perceive the world. The subjects make logical but not psychological sense. Further, so the argument goes, the conventional division of subject-matter makes it unnecessarily difficult to examine important personal and social issues in the classroom. Thus, David Warwick calls for "re-grouping the standard subjects, or certain aspects within them, in a fashion more related to the world in which the pupil lives."[5] This approach, therefore, usually organizes the curriculum around themes, or issues or problems, which serve: to synthesize the findings, methods, concepts of a wide variety of disciplines; to provide training in important skills; to deal with important topics; and, to appeal to or to arouse students' interest and motivation. Such themes could include, for example: pollution, war, the family, technology, exploration, invention, and so on.

This approach can be made very compatible with middle years education. It obviously calls for careful planning and for adequate opportunities for cooperation and consultation among teachers, or important topics and skills may be neglected. In a conventional, subject-based curriculum, it is a fairly straightforward matter to ensure that nothing important is overlooked; this may happen within any approach, but it is a more complicated matter in an integrated curriculum.

The third version of integration, the related subject approach, is less sweeping in its implications. It calls not for a revamping of the whole curriculum but only for the bringing together of a small number of subjects. Thus, for example, language arts and social studies could be integrated, or science and mathematics could be integrated. In the Manitoba grade 7 program, there is considerable scope for integrating science and social studies. This is what Warwick has called the "related studies" approach and consists simply of eliminating, or at least substantially weakening, existing subject boundaries whenever possible.

The fourth approach, the organizing discipline approach, is perhaps the simplest of all, although it calls for teachers with broad general knowledge, who read widely, and who can make connections between topics that might otherwise remain unrelated. It recognizes that subjects do not exist in water-tight compartments but rather spill over each other's borders. It organizes the curriculum in terms of the more or less traditional disciplines, but makes connections among and outside them wherever possible. For example, as suggested in chapter 4, the social studies teacher dealing with World War I can, without too much trouble, deal with technology (the machine

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gun, the tank, the aeroplane, for example); with poetry (Owen, Graves, Sassoon, for example); with art (recruiting posters, war artists); with psychology (propaganda, public opinion); with home economics (nutrition, rations, clothing styles, for example); with science (weapons development, poison gas, for example); and on and on. Apart from drawing on their knowledge, teachers can, and indeed should, keep informed of what is happening in other subjects so that they can make links wherever possible. Given the trend in middle years education to organize teachers into instructional teams, this approach is becoming easier than it once was.

Mini-options

Middle years schools often make considerable use of mini-options, that is, elective courses which last for only a limited time (anywhere from two or three weeks to a term), and which are intended to provide some variety and enrichment that goes beyond the regular curriculum, while at the same time speaking to the developmental concerns and needs of students. The 30 percent unallocated time can be used to teach, in the form of mini-options, topics that are seen as important but are not actually in the prescribed curriculum. Special topics in science, mathematics, and social studies or novels, poems and plays could be presented as mini-options, as indeed could specific topics in music, art or anything else. There may well be for any group of students some components of "general studies" which are not in the curriculum but which should be provided. Here, mini-options could be presented to fill the gaps; there would be an overlap between the middle-years priorities of general studies and of personal development, since mini-options are intended to increase students' knowledge and widen their interests. Such "academic" extras could include, for example: science fiction (language arts, social studies, science); fantasy worlds (language arts); exploration (language arts, social studies, science); rocks and stones (science, social studies); mathematics games and puzzles; weighing and measuring (mathematics, science); sports history (social studies, physical education). The list could be expanded indefinitely, but, in the case of such "academic" mini-options, the important criteria are that: (a) they are, in fact, academic and can be defended on academic grounds; (b) they are extensions of the academic disciplines, either singly or in combination; (c) they go beyond the prescribed curriculum either in the sense of filling in gaps, or offering supplementary work; (d) they are of interest to enough students; and (e) they can be defended against critics as a worthwhile use of time.

At the same time, mini-options need not and should not be exclusively academic. They should also include offerings which allow students to explore new activities and fields of interest, to relax and let off steam. Such mini-options could lie in the areas of hobbies (photography, stamp-collecting); arts and crafts (carving, weaving, painting); physical activities (archery, cycling); and on and on. W. M. Alexander and P. S. George speak of three kinds of mini-options: exploratory courses; special interest activities; and seminar/independent study opportunities. They suggest five criteria for their design and selection:

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1 The mini-option should encourage student initiative in organizing, selecting, planning and conducting.

2 The group should meet much less frequently and for a shorter term than the traditional exploratory courses (although some middle schools do not differentiate between the latter and the activities, giving less time to general music, for example, than in the usual six- to eighteen-week course, and perhaps more time to the guitar activity than the typical middle school having the usual exploratory course in music).

3 Teacher responsibility for a mini-option activity is a part of the teacher's assignment, but teachers should have much freedom in proposing and planning the particular activities they guide.

4 The students' participation is voluntary and no grades are given by teachers; however, the teacher advisor does help students make choices of appropriate activities.

5 Students throughout a middle school may choose activities so that these activities are not organized by grades or ability levels or other factors toward homogeneity. In some schools the activities are organized within teams; if the teams are heterogeneous, the activity groups are likely to be also.[6]

WHY TEACH LEARNING SKILLS?

As noted earlier, skills should not be thought of as a separate curricular area with its own particular block of time, but rather as something that is an integral part of the whole curriculum. The danger is that by integrating skills and curriculum, the skills may become lost as teachers become immersed in the subject matter. The reason for dealing with them separately is not that they should be taught separately but to emphasize their particular importance in middle years education.

The curriculum guides published by the provincial Department of Education include lists of skills which are incorporated into the prescribed subject matter, and there is little point in repeating them here. However, the essential points are: that teachers be aware of the importance of the skills; that the teaching in fact incorporates skills; and, that students are evaluated in terms of skills. Research on the subject of skills suggests that:

- Skills are not caught — they are deliberately and specifically taught;
- They are most effectively learned in a functional context rather than as ends in themselves;
- They are best learned when frequent practice is provided;
- They are best learned in short but frequent sessions rather than in one long once-for-all unit;
- They are best learned when students understand and accept their utility and importance.

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Skills are probably most often thought of in terms of the three Rs, especially now, when the "basics" are much discussed. Apart from the traditional skills of reading, writing and arithmetic, however, there are at least two other skills which are crucial to middle years education and yet which are sometimes neglected. They are the skills of effective discussion and the skills of reflective or critical thought.

Discussion Skills

Given the importance of discussion in middle years teaching, it is surprising how little time is spent teaching students how to do it.[7] It is crucial that students explore issues and encounter a variety of viewpoints so that by listening to arguments from their classmates they can deal with the kind of dissonance that promotes cognitive development. It is recognized that students have to be taught other skills -- note-making, summarizing, essay-writing -- and it is understood that they must be given plenty of practice, but it is commonly thought that discussion skills will be learned spontaneously.

Before looking at this point more fully, we should consider one other point. The first and indispensable step in fostering effective discussion is to establish an appropriate classroom climate. There is no point expecting students to enter into open and spirited discussion if they think that their opinions will not be taken seriously, or if they are afraid of being ridiculed -- be it by their teacher or by other students -- or if they have no interest in what they are doing. Establishing an appropriate classroom climate is fundamental to encouraging successful discussion.

As with any teaching technique, stage-setting is vitally important. Discussion often fails to get moving, for example, because the initial question is posed in terms that are too general. "What do you think of the women's movement?" is, at best likely to provoke only a series of one-liners in response: "You tell us"; "It's dumb"; "I like women"; and so on. To avoid this, it is best to begin with a specific incident, preferably something recent and in the news, so that discussion begins with personal reactions to and opinions about a concrete episode which, at the same time, raises more general questions. To stay with the example of the women's movement, for example, it would be useful to find news stories dealing with, say, sexual harassment in the workplace or a woman's being refused a job because of her gender. All things being equal, students will discuss the specifics of such incidents quite sensibly, and once this has begun, it is not difficult to broaden the discussion into the more general issues that they raise. The most important consideration is that the issue is one about which students can reasonably be expected to have opinions. It would not be of much use, for example, to ask them to discuss the implications of Louis Riel's execution unless they already knew something about it.

These comments apply especially to the type of ad-hoc and often fairly short discussions that a teacher might initiate at the beginning of a class in order to get things moving. Once students have become used to this, they

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will themselves begin such discussions by asking questions about something that has happened. At times such discussions can assume considerable momentum. More common, however, and certainly more formal, are those discussions which are pre-planned as part of a teaching strategy. In these cases, students are commonly assigned to read something in order to have something to discuss.

In either case, the ad-hoc or the planned, once discussion begins, certain rules come into play, although they should not be too zealously enforced. These rules imply the existence of certain skills, and both rules and skills have to be deliberately taught before discussion can be effective. One of the most useful attempts to formulate rules is Fawcett Hill's Group Cognitive Map.[8] Here, a discussion group, having done some assigned reading, works its way through nine steps:

. definition of terms and concepts;
. general statement of author's message;
. identification of major themes and sub-topics;
. allocation of time to be allotted for discussion of different topics;
. discussion of themes and sub-topics;
. integration of material with other knowledge;
. application of the material;
. evaluation of author's arguments;
. evaluation of group and individual performance.

These nine steps are taught and applied systematically -- even dogmatically when a group is first beginning -- until they become almost second nature. They can be modified to suit one's particular purposes. For example, a less elaborate version is:

. summary (in the student's own words) of author's message;
. identification of major themes and sub-topics;
. discussion of themes and sub-topics;
. integration of the material with existing knowledge;
. application of the material;
. evaluation of the author's message.

As a group becomes familiar with this approach it becomes less and less necessary that the members worry about each specific step. Experienced groups can often telescope steps, interchange them, and generally treat the whole process with a good deal of flexibility. However, one point is crucial: initially, the steps must be very deliberately taught and applied.

The skills of discussion can be broken down into three categories: the first, discussion-flow, includes both the logical and the organizational components of discussion; the second, group interaction, deals with the various roles that people might assume in a group; the third, debating skills, describes the common tricks and ploys used when people argue.

Discussion Flow

Discussion flow can be summarized as a series of questions so that students

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can learn to organize discussion and to evaluate it so that it becomes a tool for further learning. Here is a possible outline:

What is the issue or topic?
. can it be stated as a question?
. does everyone understand it?
. is it clearly stated?

What does the issue involve?
. are any definitions of terms necessary?
. what (if any) are the values involved?
. what are the facts?

Is there an agreed agenda for the discussion?
. what is the purpose of the discussion?
. what topics will need to be discussed, in what order?
. are any time allotments needed?
. above all, is everyone clear what the discussion is supposed to achieve?

Are all points of view considered?
. have all the possible points of view on the issue been identified?
. have their strong and weak points been identified?
. if there is not enough time, which will be discussed and which ignored?

Are the following discussion activities carried out when necessary?
. periodic summaries provided so that everyone is clear about what has been said;
. examples given or asked for to support or contradict arguments;
. definitions agreed upon;
. sources of authority asked for or given;
. factual information asked for or given;
. clarification or explanation of points asked for or given.

Does the discussion stay on topic?
. do people listen to and reply to each other rather than go off in their own directions?
. are debating tricks identified and challenged?
. are red herrings avoided?

Does the discussion come to a definite end?
. have you arranged to bring the discussion to a definite end rather than allowed it to evaporate?

Group Interaction

How the members of a group interact can have a major efffect upon the course of a discussion. Here again is something that should be deliberately taught, so that students are introduced to the roles that people commonly play in a group. Look for specific personal roles. Who played the following roles and how often? How did they affect the discussion?

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Facilitator
. brings discussion back on to topic;
. summarizes;
. settles personal arguments;
. seeks more information.

Initiator
. offers opinions;
. raises new points.

Encourager
. brings everyone into the discussion;
. encourages people to speak;
. discourages personal attacks.

Clown
. shows off;
. tells pointless stories;
. interrupts for no reason.

Blocker
. keeps hammering at one point no matter what other people want;
. holds up the discussion;
. will not agree to reasonable points.

Focusser
. brings discussion back on to topic;
. clarifies what people mean;
. asks tough questions.

Dominator
. will not give others a chance to speak;
. will not consider other people's opinions.

Non-participant
. says little or nothing (here it is important to distinguish between someone who is interested and does not wish to speak and someone who is simply not interested).

Debating Skills

Finally, students should be taught to recognize and deal with at least the commonest debating tricks by means of which arguments are often won or lost, or sidetracked. Here are some debating tricks to watch for in discussion:[9]

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Type	Description	Examples
1 Using emotional language	The use of words which carry certain meanings so that listeners will be influenced either for or against you.	. I'm firm, you're stubborn, she is obstinate, he is pigheaded . . . . That sounds like communism to me . . . . Mr. X is a fanatical liberal (i.e. instead of dedicated, enthusiastic, committed, etc.)
2 Appealing to a respected source of authority	Referring to someone or something that almost everyone respects (e.g. the Bible) in order to make your argument seem stronger or someone else's argument seem weaker than it really is.	. Well, that isn't what our teacher said yesterday . . If you don't believe me, check today's newspaper . . . . My brother is a policeman (professor, millionaire, priest, etc.) and he says . . .
3 Using an ad hominem argument	Ad hominen is Latin, meaning "against the man." Here you ignore the content of the argument and instead attack the speaker personally.	. Well, how would you know, you've never been there . . . . Everybody knows that you're a 100% socialist so that your mind is already made up . . . . You're not even old enough to vote, so what gives you the right to say that?
4 Referring to personal experience	Using your own personal experience to convince other people that you are the only one who knows what he/she is talking about. After all, you've been there, etc.	. Well, I actually saw a UFO . . . . I've been questioned by the police so I know exactly what they're like . As an immigrant, I can tell you all about prejudice . . .
5 Converting the particular into the general or "some" into "all."	Taking one or a very small number of examples and treating them as though they tell the whole story. Some of the examples in #4 also illustrate this.	. It's well known that teenagers are careless and irresponsible . . . . Did you read about Mr. X taking a bribe? That's just like a politician . . I worked for a woman boss once, so I know what they're like . . .

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Type	Description	Examples
6 The appeal to "common-sense."	Referring to something that you hope everyone will think of as common-sense so that they will give up the argument.	. Well, it's against human nature . . . . History proves that most people don't know what is best for them. . It's obvious that free enterprise is more efficient than government-run industry.
7 Stereotyping	Treating one set of people as though they are all the same and can all be described by the same words. This is similar to #5, where people suggest "all" when they mean "some."	. Politicians are only interested in what they can get for themselves . . . . Women simply aren't good with their brains as men are . . . . People on welfare are lazy . . .
8 Using one-sided examples	Trying to prove argument is right or wrong by using only those examples which help your side and ignoring any others.	. It's easy to see what Russians are like, just look at Stalin . . . . Of course, the British make the best cars; look at the Rolls-Royce . . . . If you want proof that black people are physically superior to whites, just look at American basketball . . .
9 Treating values or opinions	Taking something which is only a personal opinion and stating it as though it were a fact about which there cannot possibly be any disagreement.	. That's a terrible shirt (= I don't like it). . What a stupid argument! (= I don't agree) . Politics is for the birds (= I'm not interested)
10 Misusing statistics	Quoting figures and specific quantities (they always sound very scientific) to prove or disprove an argument, usually by using those figures that help you and ignoring all others. People may even invent	. Our unemployment is lower than it was five years ago (BUT — it may be higher than it was last year). . We are giving hospitals $50 million this year (BUT -- as a percentage of total funds it may be

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Type	Description	Examples
	statistics to make their argument look more impressive. The main points to watch for are (1) the source of the figures and (2) what is being compared to what.	a smaller amount than previously). . Our cost of living is lower than that in half the provinces (BUT -- it's also higher than that in the other half).
11 Bluffing	There is a story of a diplomat whose speeches were notated like a musical score: "weak point: shout here;" "needs emphasizing: raise voice"; etc. Often when people feel they are losing an argument, they turn to bluff: they pretend to be angry, indignant, hurt, offended, etc., in order to make the opposition feel guilty.	. How dare you say that I don't know what I'm talking about? . . . . I'm older and more experienced than you . . . . I'm really shocked that you don't agree . . .
12 Changing the issue	Often when people are discussing something they move off the topic without even realizing. However people can also change the topic on purpose in order to avoid areas where their arguments are weak, or to make someone else's argument look false.	. You said that Russia became Communist in 1914, but in fact it was in 1917 . . . (and the argument switches to who is right, or whether dates are important, etc.). . I don't know why you're going on about cancer, the biggest cause of death is road accidents (this may be true but it does not mean that therefore we should ignore cancer).

If this is what should be taught, there still remains the question of how best to teach it. Initially, many of the discussion skills will need to be introduced to students by way of lecture and explanation, despite the apparent paradox of teaching discussion skills by exposition. However, students should be required fairly quickly to apply what they have been taught. In the first instance this is probably best done by giving them transcripts of discussion for analysis. Once they have gained some familiarity with the main points, they can work with discussions recorded on audio or videotape. And then, of course, they should be engaged in discussion themselves.

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To make discussion an even more powerful tool, and to drive the skills home more firmly, students can also be taught to evalulate their own discussions. Two things are necessary: an evaluation measure, and a way to apply it. The measure need not be especially complicated; indeed, the simpler the better, as the following example of a discussion evaluation suggests:

1. Was the issue clearly stated?
2. Was the issue generally understood?
3. Did the discussion stay on the topic?
4. Did the discussion reach a definite conclusion?
5. Were discussion techniques used (periodic summaries, examples, sources of authority, classifications, definitions, separation of fact from opinion)?
6. Were debating tricks identified and dealt with?
7. Did people listen to and respond to each other?
8. Did everyone participate?
9. Was anything important missed?
10. Were you satisfied with the discussion?
11. Were you interested in the discussion?
12. How would you rate the discussion?
13. What have you learned from the discussion?
14. What should be done differently?

On this particular measure, questions 1 to 12 could be answered on a sliding scale (say, a five-point scale) ranging from excellent (A) to unsatisfactory (F). Questions 13 and 14 are obviously open-ended.

There are various ways to use an analysis like this. The discussion can be taped, for instance, and then analyzed by the students themselves. They can give an immediate assessment once the discussion is over, or they can keep a running assessment as the discussion goes on. Or, some members of the group can be assigned the task of evaluating the rest of the group as it carries on the discussion. Finally, one can use the fishbowl technique in which one group of students sits around another group, forming two concentric circles, and listens to and analyzes its discussion.

Critical Thinking Skills

There is widespread agreement that developing critical thinking in students is one of the central aims of education. Despite this, however, its importance is not always reflected in classroom practice. Some educators argue that this occurs because schools (and indeed society), despite professed ideals, do not really value critical thinking very highly, being concerned rather in producing conforming, dutiful citizens. Truly critical thinkers, in this view, are seen as awkward nuisances who ask too many questions.

There is much to be said for this argument, but the problem is more complicated, for even teachers who value critical thinking do not always incorporate it in their teaching. In large part, this seems to happen because critical thinking is too seldom clearly defined. It is often defined as

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"having an opinion," or "expressing an idea." If critical thinking is to be taught and if the skills inherent in it are to be learned by students, then the term must be precisely described, and it must be stressed that critical thinking is not one undifferentiated whole but an interconnected group of component parts. Perhaps the most useful definition of what is involved in critical thinking is that of Robert Ennis.[10] The student who has learned critical thinking can:

- grasp the meaning of a statement;
- judge whether there is ambiguity in a line of reasoning;
- judge whether certain statements contradict each other;
- judge whether a conclusion necessarily follows;
- judge whether a statement is specific enough;
- judge whether a statement is actually the application of a certain principle;
- judge whether an observation statement is reliable;
- judge whether an inductive conclusion is warranted;
- judge whether the problem has been identified;
- judge whether something is an assumption;
- judge whether a definition is adequate;
- judge whether a statement made by an alleged authority is acceptable.

This list, though extremely useful in making the definition of critical thinking more precise, suffers, in that it applies only to thinking done in reaction to someone else's views. Ennis's list is helpful if a teacher is asking students to evaluate or assess an argument or a point of view, for instance, but it is not particularly useful if the teacher wants students to pursue such large questions as whether Canada should do more to help the Third World, whether technology should be or can be controlled, or whether a particular film was good or bad. Evaluting these "policy" questions involves at least the following:

- knowing that there is usually more than one side to a question;
- knowing what the different viewpoints are;
- knowing the pros and cons of these viewpoints;
- having sufficient information to make a reasonable judgement;
- knowing the possible alternatives;
- choosing from among these alternatives.

This is obviously a tall order for many middle years students. Nonetheless, one must begin somewhere and the task is to take middle years students as far along the road to independent thought as they can go. At the very least, they should know that such thinking exists, that reasonable people can differ over issues and courses of action, that there are rational standards of debate and judgement.

It follows, then, that teachers' attitudes are crucial. Teachers must demonstrate in their daily conduct that knowledge is not something closed and static, but rather that it is constantly being refined, challenged and enlarged. They must demonstrate that new ideas are to be welcomed and critically considered, that conclusions are necessarily tentative. Of

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course, we assume that teachers will also demonstrate that knowledge itself is important. Middle years students are dangerously prone to discuss questions on the basis of little or no evidence, and classroom discussion can too easily become an exchange of mutual ignorance which may serve a therapeutic or cathartic purpose but has little educational value.

Teachers' attitudes towards their students must also be open. They must be willing to consider and encourage divergent opinions in their students. And they must encourage what Bruner has called intuitive thought. They must display these attitudes in the kinds of questions they ask and in the tests and assignments they set.

Creative Thinking Skills

Despite its importance, it would be wrong to consider critical thinking exclusively. There is a considerable case to be made, and especially for students in the middle years, for encouraging creative thought as well. As the British psychologist, Edward de Bono, has suggested, we need to encourage the ability to think generatively, that is, to think in ways that generate as wide a range of alternate ideas as possible and then to pick and choose among them. Instead, we have concentrated on the kind of analytical or critical thinking that moves forward in a logical, step-by-step progression. It is not that one is more important than the other, but rather that both are equally important and necessary. De Bono has shown that thinking is not some innate skill or ability bound by the alleged limits of I.Q., but that it can be taught and fostered and improved. Indeed, he has for some years argued for the inclusion in school curricula of thinking as a separate subject. As he puts it, "There can be no doubt that thinking is an acquired skill rather than a natural ability . . . [and] with deliberate techniques it seems possible to improve creativity."[11]

De Bono's comments are worth particular emphasis since there is a tendency in junior high schools to start dividing students into academic and non-academic categories and to assume that only the academically-oriented students can do serious work. De Bono's work indicates that such divisions are misleading at best and that so-called slow or slower students can think and entertain ideas equally as well as their supposedly more gifted classmates. De Bono's conclusions are borne out by the work of Kenneth Weber of the University of Toronto. He has commented that "adolescent slower learners reach new insights when an intelligent teacher perceives the needs and recognizes the potential of those students."[12]

Generally, creative, exploratory thought seems especially appropriate for middle years youngsters, given what we know of their needs and characteristics. They are, so to speak, at a crucial age in which they have not yet lost the enthusiasm and inquisitiveness of the early years but have not yet acquired the more narrowly focussed concerns of the years to come. Middle years youngsters are especially ready to acquire the kind of thinking which is so necessary in today's world and in the world of the foreseeable future. We must foster problem-solving in the conventional sense, where students apply their critical abilities and skills to problems which have already

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been formulated, and we must also move in new directions so that students will know how to identify and formulate problems. In the words of the Club of Rome report, No Limits To Learning, we need to stress two kinds of learning: innovative and maintenance learning. As the report describes it, "Maintenance learning is the acquisition of fixed outlooks, methods and rules for dealing with known and recurring situations. It enhances our problem-solving ability for problems that are given."[13] While it is important, maintenance learning is not enough. The problems that face us, both young and old, and that will face our students in their years of adult citizenship, are increasingly different from those of the past, so that our traditional view of critical thinking and problem-solving has to be supplemented by anticipatory thinking and problem-formulating. This means, to use the words of the Club of Rome report again, "an increased emphasis on conjectures, hypotheses, scenarios, simulations, models, trends, plans, long-term views, and an examination of the hidden implications of our actions."[14]

HOW CAN TEACHERS PROMOTE PERSONAL GROWTH?

The above description of thinking and discussion skills leads us directly into the area of personal development. Personal development in all its dimensions — physical, intellectual, emotional, moral, social and the rest -- is obviously a central thrust of middle years education. It is sometimes implied, however, that personal development lies at the opposite end of the spectrum from academic concerns, and we are sometimes presented with a dichotomy — the happy, child-centred middle school versus stifling subject-centred junior high. Enough has been said earlier in this chapter and in chapter 4 about the dangers of this distinction. Academic goals need not be sacrificed in favour of students' personal development; what we need to do is to find ways of linking the two together.

No teacher needs to be told that, despite the separate taxonomies that exist, the cognitive and the affective cannot, in fact, be separated. Classroom climate is obviously crucial for good teaching, and so is a satisfactory personal relationship between teachers and students. Teachers can work wonders for students' personal development by their off-the-cuff comments, their incidental remarks, their chance meetings around the school. Personal development should not be reserved for a special area of the curriculum, nor should it be the peculiar responsibility of the guidance counsellor. Rather, it should be the concern of all middle years teaches in all their contacts with students. Thus, what has come to be called "walking advisement" is very much a feature of middle years education, this method consists essentially of teachers taking the opportunity to talk informally with students as they meet them around the school. Middle years students respond particularly well to such encounters which indicate to them that they are known, that they are taken seriously and that their teachers care about them.

Values

Moral education "is that process which helps children to develop their own moral philosophy. And this suggests that they should live self-directive

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lives based on a coherent value system, which springs from rationally held ethical principles."[15] The difficulty is how to reach this objective. Morality as defined above is attained as the result of a developmental process; the task of the school is to enable students to move to the highest possible stage of moral development. In Piaget's terms the task is to help a child move from "heteronomous" to "autonomous" morality. N. W. Bull's description of the nature of moral development is especially apt:

> There are different levels of moral behaviour. We may illustrate them more fully from driving a car. At the lowest level, a man may drive with complete disregard for anyone else. His sole concern is his own pleasure, limited only by care to avoid doing himself injury. His sanctions or controls are simply pleasure and pain. At a second level a man may drive with care, but only from fear of the law and of the consequences of breaking it. At this level the sanctions are punishment and, its obverse, reward. At a third and higher level a man may also drive with care, but motivated by concern for others and for his reputation among them. Here the sanctions are social praise and social blame. At a fourth, and highest level, a man may drive with care, motivated solely by his own inner principles of conduct. He is dependent neither upon the external constraint of law nor upon the external force of public opinion. His over-riding concern is not simply living with others, but living with himself -- for his sanctions are internal. They are self-praise and self-blame.[16]

The dilemma is how to teach moral behaviour to students without using undesirable methods. For example, if one decides that honesty is valued, then there are effective ways of ensuring that people are honest. One is indoctrination. Another is operant conditioning. Here, however, one ends up with the contradiction of producing moral behaviour by "immoral" means, that is, by not respecting a person's autonomy. Moral behaviour must be defined in terms of self-direction and autonomy based upon defensible ethical principles. The development of such behaviour is an important task of the schools, especially in the middle years.

Moral reasoning is an important component of such behaviour. It is, of course, possible for a person to be able to reason morally as an intellectual exercise but not to act morally. Nonetheless, moral reasoning is a prerequisite of moral action. People cannot act upon moral principles unless they are first aware of them. Moreover, if we want students to become morally autonomous so that they learn to act upon the basis of rationally defensible moral principles, then moral reasoning is obviously important.

The work of Harvard psychologist, Lawrence Kohlberg, is important in this area. He maintains that there is an invariant sequence in the development of moral reasoning, as follows:

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Stage 1: Punishment and Obedience Orientation
The physical consequences of an action determine its goodness or badness. Avoidance of punishment and unquestioning deference to power are valued in their own right.

Stage 2: Instrumental Relativist Orientation
Right action is that which satisfies one's needs, and, occasionally, the needs of others. Essentially this is a "you scratch my back, I'll scratch yours" approach.

Stage 3: Good Boy/Nice Girl Orientation
Good behaviour is that which pleases others and is approved by them. "He means well" becomes important for the first time. Behaviour is judged by intention.

Stage 4: Law and Order Orientation
Right behaviour consists of doing one's duty, respecting authority, and maintaining the social order.

Stage 5: Social Contract Legalistic Orientation
Right action is seen in terms of general individual rights and of standards which have been rationally examined and accepted by society. Thus, there is respect for law but also an emphasis upon the possibility of changing law. Outside the sphere of law, right is a matter of personal opinion, with obligation depending upon free agreement and contract.

Stage 6: Universal Ethical-Principle Orientation
Right is defined in terms of self-chosen ethical principles based upon logical comprehensiveness, universality and consistency. These principles are not specific rules like the Ten Commandments, but rather the general, more abstract principles underlying such specific rules.[17]

One reason that Kohlberg's work is so valuable is that it draws teachers' attention to the crucial fact of students' readiness for, and ability to engage in, different types of moral reasoning. It is clearly futile to involve students in discussion of moral issues at a level beyond which they are able to proceed. Thus, the first task for the teacher is to find out where the students are in terms of moral reasoning. Indeed, this may be the second task, the first task being for teachers to find out where they themselves stand. It would be impossible for a teacher still at the "law and order" stage of morality to attempt to move students to a higher level of moral reasoning than his or her own.

Kohlberg's work is valuable, but much more can and should be done in the field of value analysis and value clarification. Values and value issues must be deliberately, openly and critically dealt with in the curriculum. Students must become consciously aware of the existence of values; they must come to realize that different values can co-exist and conflict; they must learn to examine their own values and those of others.

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The effective treatment of value issues in the classroom clearly depends upon the cognitive development of students. There is much research to show that there is, in fact, a relationship between cognitive development and moral development. Teachers must be aware of the opportunities for rational discussion with children in view of their particular stage of capacity for moral reasoning. Further, there is no necessary relationship between the ability to reason and the desire to act morally. Moral behaviour is not solely the result of moral reasoning. Other factors also help to shape it. For example, the child is susceptible to the influences of the home, the peer group, the local community, and so the process of imitation plays a part in the development of behaviour. Suggestion works in ways very similar to imitation and is also a powerful influence in the development of behaviour. Similar to both is the process of identification.[18] Teachers must be aware of the importance of the school environment in helping to shape the behaviour of students. Imitation, suggestion and identification are in themselves neutral processes and can result in many different forms of behaviour. What is important is that the schools be aware of what is involved in what has been called the "hidden curriculum" and shape their requirements so as to produce "morally autonomous" persons. To take one small example: obedience to rules should not be enforced as an end in itself, but rather as something for which valid and defensible reasons can be given and discussed.

Teaching about values, then, is an important part of personal development in the middle years, especially given what we know of the striving of middle years youngsters to establish a personal philosophy, of the propensity of middle years children to question accepted truths, of their emerging capacity for reasoned thought. However, there is more involved: As noted in chapter 2, the physical and psychological changes that occur in the middle years are of fundamental importance. Paradoxically, however, we tell the youngsters involved very little about these changes. It is as though adults want to keep their knowledge secret. It seems reasonable, however, that students should know and understand what is happening to them -- such knowledge might enable them to cope a little more effectively than they sometimes do. If adolescence is to be understood by anyone, it should be understood by the adolescents themselves. This can obviously be done in a variety of ways -- by providing courses in health, physical education, guidance, by establishing advisory groups and so on. What is important is not how it is done but that it should be done.

Teacher-Advisor Program

Middle years students often need someone to talk to and to confide in. One of the negative consequences of subject-specialization in these years is that students may not see any one teacher as particularly theirs, and this is especially so if the homeroom is only an administrative convenience. Indeed, the very term "homeroom" indicates that there is at least one place in the school where students should feel at home, where they can relax, where they can find support, and where they can be themselves. Unfortunately, as curricula become more specialized and more fragmented and as

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students pick and choose among a range of courses and programs, so the homeroom becomes less and less significant until it either disappears altogether or becomes purely a place for registering attendance and listening to announcements. The result is that students have no teacher to whom they can take their troubles and concerns or to whom they can simply talk. By the same token, teachers do not identify any particular group of students as their special responsibility. For the most part, guidance counsellors are too few and far between and too busy with their particular tasks to be of any assistance in making regular connections with students. And most middle years students avoid the kinds of crises that need the services of trained counsellors. Students' concerns and problems, though they seem earth-shaking for them, are for the most part quite mundane.

Therefore, implementing a teacher-advisor system is very important in the middle years. The key point is that each student has one particular teacher with whom he or she can identify. W. M. Alexander has called this particular middle years concern the "fourth R," standing for "relationships."[19]

The advisor system, of course, is a type of guidance program, though it is different from that offered by the school counsellors; in other words, while it is not a replacement for a program with trained counsellors, it is an important supplement to their work. The fact is that counsellors are simply too few and too busy to establish personal relationships with all students in a school. They will get to know some students, particularly those with special needs or characteristics, but their special responsibilities will usually keep them busy enough. If students are to establish personal relationships with a particular adult in the school setting, as is so important in the middle years, then it must be with classroom teachers.

Further, an advisor system will provide students with needed experience in working in groups and in relating to other people. As Alexander and George put it, middle years youngsters "need constant support in the struggle to master the requirements of successful living with peers, within and beyond the classroom and the school."[20] Given the wide diversity found among middle years students, advisor group experience will also expose them to different levels of reasoning and different points of view and, as psychologists tell us, such exposure and the dissonance it creates are important stimulants for development.

Indeed, schools with teacher-advisor programs have often found that the school and classroom climate improves and that problems of misbehaviour are reduced. This is not particularly surprising. If students feel that they are accepted, that they belong, if they feel positively towards teachers and school, they are obviously less likely to behave in destructive or negative ways.

To be most effective, teacher-advisor programs should involve scheduled meetings, either on a daily basis or at set intervals, say, two or three times a week. In some schools the advisor group meets for the first thrity

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minutes of every school day. In some timetabling systems a particular slot is reserved. In addition, teacher-advisors are often given the right to meet with one or more of their students at any time, even though this might mean taking them out of a scheduled class.

To be successful, a teacher-advisor group needs careful planning. Teachers are not expected to be therapists and advisor groups are not supposed to be encounter sessions. The key element is that teachers be themselves and concentrate on building up relationships with their students. It is true that advisor groups have sometimes become involved in value-clarification exercises and sensitivity sessions, but this is neither necessary nor desirable. What is needed is a planned program of activities which students see as relevant, useful and interesting. Among such activities are:

- reading of all kinds;
- discussion of current events or topics suggested by students;
- academic planning and course selection;
- career advice;
- reading stories aloud;
- journal writing;
- individual counselling and advice.

Advisory groups vary in size, most running between fifteen and twenty-five students, and possibly including teachers, the vice-principal and even the principal. The key elements are: staff support, administrative support; and, careful planning. The following summary, taken from a Winnipeg school, provides a good description of what is involved in an effective teacher-advisor program.[21]

Specific function for each advisor	Suggested implementation techniques
Gets to know assigned students well, is concerned with their over-all development, and helps students follow through with their responsibilities.	. engage in informal conversation with advisees; . make special effort to help students who are new to the school to adjust; . keep a record of each advisee's updated schedule, background information credits earned, and anecdotal information; . contact advisees by phone during extended absences.
Meets with advisees as a group and tries to communicate authentic interest and concern for the progress of each student. Helps students assess their progress, set goals, make decisions, and become more responsible.	. periodically schedule individual student conferences; . examine and discuss with each advisee his or her schedule, attendance, progress, use of time, goals, activities, outside-of-school interests, etc.;

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Specific function for each advisor	Suggested implementation techniques
	. confer with other staff members regarding advisee's progress; . facilitate for advisory groups in the following areas: values clarification; leadership and communication skills; self-awareness; small-group techniques.
Helps advisees confer with other staff members as needed.	. accompany student to see teachers with whom there are matters to work through and resolve when the student needs this kind of help; . participate in referral conferences within the building when the student needs this kind of support; . inform advisees how various staff members and resource people can be helpful; . in cases of low grades, maintain persistent follow-up with student, teachers, and parents to urge adequate progress.
Consults with other school staff in order to better understand advisees and help them with their concerns.	. inquire of staff about advisee's needs and performance; . obtain educational and vocational information pertinent to advisee's interests and needs; . adapt other advisor's methods of improving rapport and communication with advisees as may be suitable; . informally confer with other staff to develop and improve approaches to helping advisees; . participate in periodic in-service sessions conducted for this purpose.
Is a person to whom advisees have easy access in time of need.	. have your name, schedule, and appointment sheet clearly known; . insofar as possible, establish daily periods at your desk when you are available to help advisees and encourage them to drop by to see you from time to time for informal conversation or assistance as they may desire.

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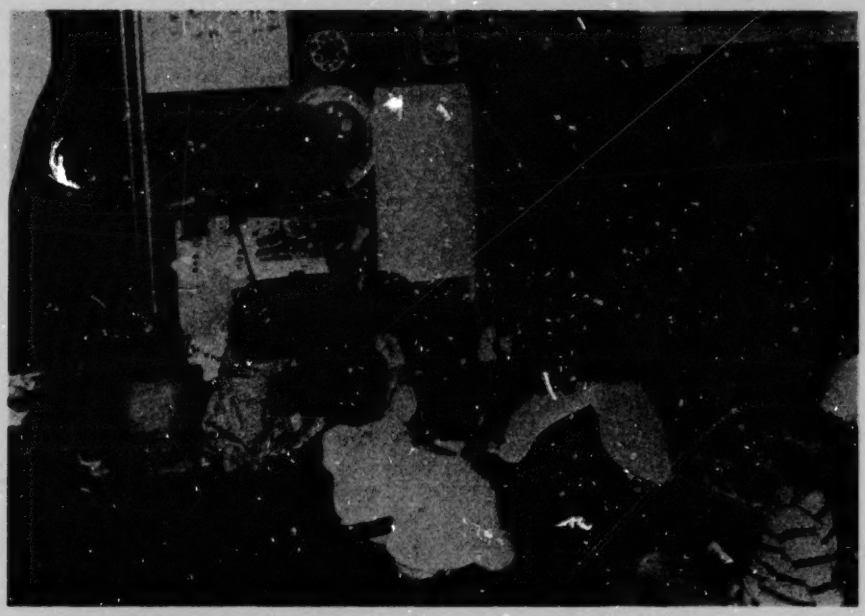
Specific function for each advisor	Suggested implementation techniques
Initiates and receives communications from parents regarding development of advisees.	. invite parents to keep in touch; . conduct parent conferences.

If they are to achieve their full potential, advisor groups should be composed of students from all the grade levels in the school. This multi-age, multi-grade grouping is the best way to counter the age-segregation that is so common in classrooms. It provides a chance for older students to work and mix with younger students and even to take some responsibility for them. In addition, it provides an easier transition for students coming from elementary schools to the bigger, sometimes intimidating middle years school.

Students Teaching Students

An effective middle years program should provide systematic opportunities for students to work with younger and older students. Students who are succeeding in a subject should be led to work with others who are not. The student-tutor benefits from having to use and apply knowledge in a purposeful, useful way. The student-learner benefits from receiving immediate feedback, personal help and working in a non-threatening atmosphere. And both learner and tutor benefit from the experience of co-operation. Beyond this, it can be profitable to arrange for middle years students to work



It can be profitable for middle years students to work with elementary school students.

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with, say, elementary school students, whether in academic subjects, sports, playground activities or whatever else. Such experience has often been found to work wonders even with students who have a reputation for irresponsibility. In addition, the research indicates that when students work with students, both groups benefit. The student-tutors and the student-learners both learn more while, at the same time, improving their attitudes.

Extra-Curricular Activities

Finally, it goes without saying that an effective middle years program needs a flourishing schedule of extra-curricular, or perhaps more accurately, co-curricular, activities in such areas as sports, music, general interest and recreation. These activities should, of course, be available for all students. They should be seen as important in their own right and not as vehicles for selecting and training potential superstars.

The basic rules concerning extra-curricular activities are not complicated. Extra-curricular activities should:

- cater to the widest possible range of students;
- involve all staff members, including, if so desired, support staff and community members;
- include a wide range of activities and interests;
- allow for maximum student initiative and participation;
- be offered at times of the day which allow for maximum involvement, i.e., before school, during lunch hour, and after school;
- minimize competition and selectiveness and favour maximum involvement.

L. H. Clark and I. Starr, in their book, Secondary School Teaching Methods, suggest that extra-curricular activities should:[22]

- be planned so as to contribute directly to the educational aims of the school;
- supplement and reinforce curricular activities and not repeat classroom activities; they should introduce learning approaches and materials not available in regular courses;
- be pupil-centred, and insofar as is feasible, be pupil-planned and pupil-directed;
- provide every pupil ample opportunity to participate up to the limits of his or her abilities and interests; no one is eliminated because of race, religion, financial ability, social position, or academic standing;
- provide enough different activities to allow every pupil to participate in something he or she finds congenial;
- provide pupils with adequate opportunities to develop leadership and "fellowship" abilities;
- foster the development of healthy attitudes, ideals, and value systems and avoid the development of false and inadequate attitudes, ideals, and value systems;
- be flexible; it is easy to add new activities and drop old ones that are no longer useful;

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- be adequately supported by competent, sympathetic faculty sponsors or advisors;
- be adequately funded;
- be recognized by being properly scheduled;
- be constantly evaluated and re-evaluated.

Extra-curricular activities should comprise at least the following:

Clubs
- special-interest and hobby clubs, such as photography, chess, computers, stamp-collecting, guitar, drama;
- subject-related clubs, such as science, mathematics, current affairs, debating;
- service-oriented clubs, such as Red Cross, community projects, child-care, working with the disabled;

Athletics
The emphasis in the middle years should be on a strong intramural program, appealing to all ability levels, rather than on a selective training program for grooming star athletes. The program should also embrace as wide as possible a range of activities, including not only the conventional basketball and volleyball, but archery, curling, wrestling, softball, bowling, badminton and so on. In particular, care should be taken that a program of sports activities offers as much to girls as it does to boys.

Publications
Most junior high schools have yearbooks which involve a number of students in their production and this is a tradition which middle year schools might well wish to continue. In addition, interested students could operate a school newspaper which could appear at regular intervals. This should not be anything particularly complicated, and could consist of simply produced, typed or handwritten material. Indeed, some enterprising social studies teachers have their students put together current affairs newspapers both for their own benefit and for the benefit of the school in general.

Music
Many middle years schools have flourishing music programs. The middle years are a period when youngsters are able to learn to play a musical instrument. As with sports, a music activity program should be aimed not at the talented minority (although these should not be neglected) but rather at providing as many students as possible with a chance for direct musical involvement. In addition, all kinds of musical interests should be encouraged: folk, popular, jazz, classical and the rest. The aim should be, as in the rest of the curriculum, to broaden students' horizons.

Special Events
Extra-curricular activities should also include the special, school-wide events such as dances, field days, science and social studies fairs. Again, the aim should be to encourage student involvement on as wide a basis as possible.

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CONCLUSIONS

These are the general outlines of the middle years program. However, many questions still remain. Above all, the question of implementation looms large. How is an effective middle years program to be initiated and sustained? How is the transition to be made from philosophy to practical action? What about such important questions, timetabling, professional development, evaluation? These, and related topics, are dealt with in the next chapter. The intent of this chapter has been to establish the general philosophy and direction of middle years programs.

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6. EVALUATION OF STUDENTS

WHAT IS THE PURPOSE OF EVALUATION?

In any discussion of middle years education, the subject of evaluation should not be ignored. It is an important part of teaching. For many students, indeed, evaluation is the central fact of their school experience -- their work is marked, tests are assigned and their overall performance is assessed. As the recurrent public debate about examinations suggests, evaluation is also a topic that very much interests the general public.

Often, however, the true meaning and potential of evaluation have not been understood. The usual pattern is that a few more or less informal quizzes are given in the course of a particular teaching unit, a final test is given at the end of the unit, and also, perhaps, some kind of assignment, such as an essay or a report, is assigned. All this done, students' marks are entered in the teachers' record books and the next unit will begin. It must be emphasized that this is <u>not</u> evaluation; it is, at best, assessment, a measuring of student performance, because it does not include the diagnosis and decision-making that are an inherent part of evaluation, properly understood. Evaluation consists of far more than a single tallying of how well or how badly students do on tests and assignments.

There are several things wrong with this. First, it concentrates only upon students' cognitive performance and largely ignores the affective, social and emotional aspects of students' growth and development. Second, it can often be misleading and inaccurate. It is not, for example, too helpful to pin down Johnny's attempts to do science to a bald statement such as "65: could do better." Moreover, there is inevitably a large degree of accident and subjectivity in arriving at that mark of 65. Third, it is too general to be helpful. It provides little if any advice about what a particular student might do in order to improve. Often what it does not say is more important than what it does. Fourth, it totally ignores important technical aspects of assessment, most notably reliability and validity, so that the marks awarded come to possess an objectivity which is in fact spurious. Fifth, it does nothing whatsoever about the really important concerns of evaluation, that is, diagnosis and prescription.

The primary purpose of evaluation must be to provide information of use to teachers, parents and students, in order to find out: whether or not curriculum content is appropriate; whether or not instructional strategies are

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working; whether or not resources and materials are useful; whether or not students are working successfully. The essential purpose of evaluation is to determine to what extent objectives are being achieved and then to decide what corrections need to be made in either curriculum or instruction. The simple giving of tests and recording of marks, then, is not true evaluation and, while it may be required for administrative reasons, it must be seen as only part of the process of evaluation.

EVALUATION IN THE MIDDLE YEARS

This definition of evaluation, including diagnosis and prescription, is especially important for teaching in the middle years. As earlier chapters have emphasized, middle years education is, above all, developmental. It is based upon the needs and characteristics arising from early adolescent development; it sees early adolescence as a period of transition; and it takes as its particular task the helping of students to make this transition successfully. While not neglecting subject matter and certainly not downgrading the importance of academic learning, middle years education is particularly concerned with the personal, social and emotional development of early adolescent youngsters. If the personal, social and emotional are not looked after, if they are not seen as crucially important concerns, then students' academic learning will inevitably suffer in the middle years.

Because the personal, social and emotional elements are so important in the middle years, evaluation, as defined above, is crucial. Teachers will not be able to help youngsters in this stage of development unless they have information about their characteristics and needs. This information can best be provided through evaluation. This means, of course, that evaluation must take many forms, that it must be a continual and continuous process. As explained in chapter 4, wrong or incomplete answers can be more useful in evaluation than could right ones. So can casual remarks made by students, comments written in daily journals or clues revealed by behaviour in and out of class. When thinking about students' work and behaviour, a teacher's constant questions must be: What does this mean? What does this tell me? What should I do about it? Hence, it makes sense to think of evaluation as diagnosis, decision making and appropriate action.

What makes evaluation even more important in the middle years and what makes the teachers' tasks so complex, is the wide range of individual differences that appear in this stage of development. Not only must teachers be constantly trying to ascertain what makes their students tick, but they must also always remember that they tick in different ways and for different reasons. This range of differences has been discussed in chapter 2. The existence of this wide range of differences bears heavily upon the question of evaluation, for it, together with the developmental emphasis of these years, makes it vitally important that the teacher pitch instruction at the appropriate level. As suggested in chapter 4, for optimum benefit, instruction is best pitched somewhere between students' levels of actual and potential development, to use Vygotsky's terms. To teach only at students' level of development (i.e., making instruction follow upon developmental maturation),

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does nothing to create the dissonance and disequilibrium which nurture development. To teach too far beyond students' developmental level will leave them uncomprehending and untouched. The obvious solution, therefore, is to find a middle ground between the two. However, none of this can be done without evaluation, without a deliberate attempt to identify what the developmental level of students is and to identify what effect one's teaching is having. This, of course, is an incredibly complex task and teachers must always remember that they can never do more than make a rough stab at it; they must remember that their decisions will always be tentative. There is a real danger that, simply because youngsters are in grade 6, 7 or 8, for example, they will be defined, ipso facto, as concrete-operational by teachers with a smattering of Piaget, or as in a period of slow or arrested brain growth by disciples of Epstein. Needless to say, all such snap judgements should be avoided. Snap judgements can never be substitutes for true evaluation no matter how difficult evaluation may be.

There is one other reason for the importance of evaluation in the middle years: it has to do with youngsters' sensitivity. For most students a mark is not simply something which indicates how well or badly they did on a particular piece of work. To get 45 percent on a spelling test, for instance, does not indicate simply that the student was not spelling too well on that particular day, or that the teacher dug up some particularly difficult words. It also implies that, as a person, the student is only borderline in some undefined way. This can be especially so in the middle years when students are beginning to grapple with problems of identity and self-image, when they are trying to come to terms with their emerging needs for the first time in their lives. In short, evaluation is crucial, but it must be done sensitively and with care. Mishandled, it can create a series of self-fulfilling prophesies in which students become what they are judged to be.

Finally, it must be recognized that most middle years students are no different from those younger and older in their concern about school tests. Every teacher quickly learns to recognize that all too familiar question: Will this be on the test? Whatever changes are brought about by middle years education, it seems unlikely that this question will disappear. Tests play an important part in students' lives. They define what is to be studied, what is "really" important. Less obviously, they define the kinds of learning that teachers emphasize by the relative priorities they give to such factual knowledge versus analysis and interpretive skills; long-answer questions versus short-answer questions; the weighting given to skills. It is, unfortunately, not at all uncommon that tests are not consistent with the goals and objectives. For example, we may believe very strongly in the importance of critical thinking, and frequently tell students this, but fail to use or design tests that require it. Students are experts at distinguishing rhetoric from reality and tend to concentrate on the latter. When they study, they will study "for the test." Therefore, it is critical that tests reflect the goals and objectives in which teachers believe. Indeed, such is one of the constant refrains in all the literature on testing and measurement. If middle years teachers are truly to achieve the goals espoused by middle years education, therefore, their tests and evaluation

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procedures must be designed to reflect them. Otherwise, despite all the rhetoric and all the ideals, nothing of importance will be changed.

EVALUATION AND GOALS

Although there is wide agreement on the nature and characteristics of education in the middle years, as described in earlier chapters, there can be no precise, definitive statement of middle years goals. Such statements must be composed at the local level if they are to have any real meaning and to inspire a sense of commitment. Nonetheless, it might be useful to provide here at least a set of general goals. J. Wiles describes middle years goals as follows:

Grades 4 to 8:
Social development and refinement: to facilitate the acceptance of new roles and responsibilities, to teach the interdependence of individuals in society, to explore social values, to teach basic communications and human relations skills.

Promotion of physical and mental health: to provide an intensive program of exercise designed to develop conditioning and co-ordination; to provide an accompanying component used to promote positive physical and mental health practices; to give basic sex education.

Development of self-concept and self-acceptance: to promote feelings of worth in all individuals, to accentuate strengths, to aid in the development of realistic perceptions and expectations of self, to foster increased independence, to assist in values exploration, to explore and expand interests.

Academic adequacy: to insure literacy, to aid in the organization needed for academic achievement, to teach skills for continued learning, to introduce knowledge areas, to explore career potentials as they relate to interests, to develop independence and autonomy in learning, to foster critical thinking.

Aesthetic stimulation: to develop latent talents in art, music, writing, to promote an understanding of man's aesthetic achievement, to develop a capacity for the satisfying use of leisure time.

Grades 9 to 13:
Social maturation: to promote increased independence and autonomy in decision making, to encourage an exploration of the rights and responsibilities of adulthood and citizenship, to provide a study of marriage and family life, to encourage an exploration of socially acceptable means of communication.

Refinement of health: to define and analyze the meaning of good health for individuals and society, to personalize positive health plans, emphasize programs of individual health development and maintenance, to study causes of poor health (drugs, alcoholism, smoking, obesity).

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Supporting self-actualization: to assist in value clarification, exploration of careers and eduction as extensions of individual needs and interests, to help correct severe psychological and emotional problem areas, to identify and emphasize personal strengths.

Academic specialization: to develop specialization in knowledge areas and learning skills, to encourage exploration of academic opportunities, to refine critical and analytical thinking, to emphasize the utility of knowledge of everyday living.

Aesthetic refinement: to encourage the pursuit of quality living, to emphasize social existence, to refine aesthetic talents, to develop satisfying hobbies, to develop understanding of man's capacities for further achievements.[1]

These suggestions are especially useful because they avoid a fault found in much of the middle years literature: middle years goals are sometimes confused with middle years characteristics. For example, instituting an advisor-advisee system is often seen as a "goal" of middle years programming, whereas it is only a means of achieving a goal. It is important not to confuse these two terms, especially if a statement of goals is intended to be of assistance for evaluation purposes.

Put briefly, then, and remembering that almost any statement of goals is subject to unlimited extension, the principal middle years goals are:

- to give students a broad general knowledge
- to teach students learning skills
- to teach students cognitive skills
- to teach students skills in decision making
- to teach students skills in problem solving
- to help establish self-confidence and positive self-image
- to help establish social responsibility
- to help establish tolerance
- to help establish participativeness
- to help establish creativity
- to help establish physical fitness
- to help establish good health practices

It is customary to differentiate between goals and objectives, the term goals describing broad-range, generally stated conditions, and the term objectives implying specific immediate targets. Some experts in evaluation insist that if evaluation is to be useful, it must be based upon specific objectives which describe identifiable behaviours. There is considerable controversy on this subject; W. J. Popham and L. Stenhouse, in separate works, present particularly useful, and opposing, sides of the whole controversy.[2] There are two relevant points which have emerged from the controversy. First, it is necessary that objectives be stated clearly and precisely. Traditionally, objectives were often phrased in global terms which made it difficult, if not impossible, to know whether they had been met or

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not. Second, objectives should be stated in terms of what students will be able to do rather than, as was traditionally the case, what teachers will do.

As far as stating objectives behaviourally is concerned, perhaps it is best to paraphrase MacKenzie King and say: behavioural objectives if necessary but not necessarily behavioural objectives. Eisner, for example, makes a useful distinction between instructional and expressive objectives, the first dealing with command of existing tools and resources and the second with creative responses which go beyond what is given and thus have a large degree of unpredictability about them. In this latter case, behavioural objectives are clearly inappropriate since they can deal only with behaviour than can be specified and predicted in advance.[3] In similar vein, Stenhouse points out that educational goals and activities are multidimensional and he suggests a four-fold classification with definitions, as follows:

1. Training: the acquisition of skills;
2. Instruction: the learning and retention of information;
3. Initiation: familiarization with social values and norms;
4. Induction: capacity to grasp and make one's own relationships and judgements (this is successful to the extent that it makes behavioural outcomes unpredictable).

All four areas are educationally worthwhile and necessary but, Stenhouse argues, only the first two and possibly the third lend themselves to statements in terms of behavioural objectives.[4]

The principal point, of course, is that evaluation must be based upon and be consistent with goals. The obvious corollary is that goals must be clearly understood and clearly worded. This reinforces the importance of schools working out their own statements of middle years philosophy (see chapter 8). Without clear statements of philosophy, there is a very real danger that each school would work in a vacuum and undertake a few trendy activities for no clear purpose.

EVALUATION AS CONTINUOUS AND CONTINUAL

Reference has already been made to the traditional practice of evaluation by administering tests and assignments and recording marks. The argument has been made that evaluation must consist of far more than this. A moment's thought will reveal that good teachers are constantly evaluating and they are doing it more often informally and impressionistically than they are doing it formally. They read students' faces, listen to their answers and casual remarks, watch for clues in behaviour. They ask themselves such questions as: Why is this student never selected to join a group? Why is this student so quiet and withdrawn? Why does this student never come into the room until right on the bell and then is always the first to leave? What does all the shuffling of feet mean?

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Such evaluation, of course, embraces the whole range of behaviour: cognitive, social and emotional. The results of this kind of informal evaluation are probably best recorded and a system of record cards or class notes is advisable for teachers. One can keep a card for each student and note comments and ideas as they occur. Alternatively, one can keep a day-by-day diary so that there is a record of events. Information recorded this way can be extremely useful in building up a picture of one's students. It should, of course, always be remembered that whatever information is recorded is confidential and extremely subjective, representing, as it does, no more than the teacher's personal and often instant reactions. It may also be worthwhile for the teacher to make a deliberate effort every three or four days to observe each student so that the quieter students do not "slip through the net."

It is best to use a wide variety of evaluation procedures, both formal and informal. W. M. Alexander and P. S. George provide a useful list:

1. Conferences -- with school personnel, parents and others, to secure data regarding student learning and behaviour;
2. Diaries and logs -- kept by students and analyzed by teachers;
3. Interviews with students -- to get information about their progress;
4. Inventories of many types -- for information about personality development, interests, activities outside school, use of time, study habits;
5. Observation -- of individuals and of groups to determine various data about behaviour and learning;
6. Performance tests -- including creative work, oral reports, skills in group work, physical skills and similar items best evaluated through performance;
7. Pictures (still and motion) -- for later observation of performance, appearance and behaviour;
8. Rating scales -- used by teachers, peers, parents and others to estimate student behaviour on specific traits and also to evaluate any aspect of the school program;
9. Recordings -- of individual voices and group discussions for later analysis;
10. Records of many types -- achievement, attendance, disciplinary, health, participation in activities, time studies, cumulative;
11. Written papers, notebooks, workbooks and other materials produced by individual students;
12. Written tests (standardized, teacher-made, group-made) -- to test knowledge, skills, attitudes and performance.

Alexander and George point out that numbers 11 and 12 on this list are the most frequently used, and the first ten are unduly neglected. To quote: "Significant improvement in this important phase of middle school education requires the use of other, more relevant data for determining progress on some goals as well as more widespread concern for goals other than those which can be adequately evaluated by pencil-and-paper student projects and tests."[5]

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THE EVALUATION OF COGNITIVE PERFORMANCE

The two important questions regarding the evaluation of cognitive performance are: "What is to be evaluated?" and "How should the evaluation be done?" To consider the first question, research has repeatedly shown that more tests and examinations do not go far beyond factual knowledge despite the fact that virtually everyone acknowledges the importance of skills and higher level cognitive operations. The most useful and most used solution to this contradiction has been found in Bloom's taxonomy of educational objectives. This taxonomy is sufficiently well known not to need elaboration here, although it is worth summarizing it:[6]

I. Knowledge: the recall of specifics and universals, the recall of methods and processes, or the recall of a pattern, structure or setting.

Sub-classes:
- knowledge of terminology
- knowledge of specific facts
- knowledge of conventions
- knowledge of trends and sequence
- knowledge of classifications and categories
- knowledge of criteria
- knowledge of methodology
- knowledge of principles and generalizations
- knowledge of theories and structures

II. Comprehension: understanding or apprehension such that the individual knows what is being communicated and can make use of the material or idea without necessarily relating it to other material or seeing its fuller implications.

Sub-classes:
- translation
- interpretation
- extrapolation

III. Application: the use of abstractions in particular and concrete situations. (No sub-classes.)

IV. Analysis: the breakdown of a communication into its constituent elements or parts such that the relative hierarchy of ideas is made clear and/or the relations between ideas expressed are made explicit.

Sub-classes:
- analysis of elements
- analysis of relationships
- analysis of organizational principles

V. Synthesis: the putting together of elements or parts so as to form a whole.

Sub-classes:
- production of a unique communication
- production of a plan, or proposed set of operations
- derivation of a set of abstract relations

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VI. Evaluation: judgements about the value of material and methods for given purposes.

Sub-classes: judgement in terms of internal evidence;
judgement in terms of external criteria.

Bloom's taxonomy has been usefully elaborated by N. F. Gronlund.[7] Table 6.1 summarizes this elaboration.

TABLE 6.1
Educational Objectives: Cognitive Domain

Illustrative General Instructional Objectives	Illustrative Behavioural Terms for Stating Specific Learning Outcomes
KNOWLEDGE	
Knows common terms Knows specific facts Knows methods and procedures Knows basic concepts Knows principles	Defines, describes, identifies, labels, lists, matches, names, outlines, reproduces, selects, states
COMPREHENSION	
Understands facts and principles Interprets verbal material Interprets charts and graphs Translates verbal material to mathematical formulas Estimates future consequences implied in data Justifies methods and procedures	Converts, defends, distinguishes, estimates, explains, extends, generalizes, gives examples, infers, paraphrases, predicts, rewrites, summarizes
APPLICATION	
Applies concepts and principles to new situations Applies laws and theories to practical situations Solves mathematical problems Constructs charts and graphs Demonstrates correct usage of a method or procedure	Changes, computes, demonstrates, discovers, manipulates, modifies, operates, predicts, prepares, produces, relates, shows, solves, uses
ANALYSIS	
Recognizes unstated assumptions Recognizes logical fallacies in reasoning Distinguishes between facts and inferences Evaluates the relevancy of data Analyzes the organizational structure of a work (art, music, writing)	Breaks down, diagrams, differentiates, discriminates, distinguishes, identifies, illustrates, infers, outlines, points out, relates, selects, separates, subdivides
SYNTHESIS	
Writes a well organized theme Gives a well organized speech Writes a creative short story (or poem, or music) Proposes a plan for an experiment Integrates learning from different areas into a plan for solving a problem Formulates a new scheme for classifying objects (or events, or ideas)	Categorizes, combines, compiles, composes, generates, modifies, organizes, plans, rearranges, reconstructs, relates, reorganizes, revises, rewrites, summarizes, tells, writes
EVALUATION	
Judges the logical consistency of written material Judges the adequacy with which conclusions are supported by data Judges the value of a work (art, music, writing) by use of internal criteria Judges the value of a work (art, music, writing) by use of external standards of excellence	Appraises, compares, concludes, contrasts, criticizes, describes, discriminates, explains, justifies, interprets, relates, summarizes, supports

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The summary goes a long way to show what should be evaluated and to define the higher levels of cognitive skills which students need to acquire. It remains to be investigated how the evaluation might be done and what kind of evaluation would be most useful.

Broadly speaking, there are three kinds of evaluation of cognitive objectives: short-answer questions, long-answer questions, practical and/or experimental problems. Short-answer questions, although they possess the obvious advantage of being easy to mark, can be difficult to make up. Here are six kinds:

1 Fill in the blank: e.g., The capital of Mexico is _____.
2 Alternate-answer items, involving a choice between two or more options, e.g., true/false; yes/no; fact/option; element/compound; adverb/adjective; e.g., In the spaces provided, write T if the statement is true according to the evidence provided; F if it is false; and I if the evidence is insufficient.
3 Multiple-choice items: these are too well-known to need further description here.
4 Matching-list items, in which students are given two lists of items and are required to match them up correctly, or to choose from one list the items that correctly answer the questions on another list.
5 Check-list items, in which students are required to check off certain items which meet certain criteria: e.g., Which of the following cities are located in Africa? (a) Nairobi, (b) Mecca, (c) Cairo, (d) Lagos.
6 Arrangement of items: e.g., Arrange the following in the correct chronological sequence.

There is a wide range of long-answer approaches to evaluation -- from something as short as a paragraph to something as long and ambitious as a university-style term paper. The possibilities include:

A paragraph

Essays
. descriptive
. comparative
. cause/effect
. criticism/evaluation
. analysis
. argument for or against
. speculative

Book reviews

Short stories, plays, poems

Imaginary documents
. letters
. diaries

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- petitions
- manifestoes
- newspapers

Reports and projects
- local histories
- scientific experiments
- political issues
- visits and field trips

Often in the middle years, students are assigned, individually or in groups, major projects on such topics as ancient Egypt, Australia, evolution or volcanoes. It is not at all clear, however, that this is a wise use of time, especially for many middle years students. Such projects can be assigned only infrequently since they take a long time to complete. Moreover, students often put such projects off until the last minute and end up copying extensively from encyclopedias and reference works. Too often, in fact, such projects call for little more than copying skills and put little emphasis on thinking and self-expression. As well, teachers rarely have time to mark a project properly, since to do so calls for intensive reading and analysis of a large amount of material. Students could hand in perhaps thirty or so pages of work only to get the project back with no more than a mark and a few brief comments.

Given the importance of skills development in the middle years, it seems worthwhile to place more emphasis on the writing of short pieces of prose, pieces even as short as a paragraph. Such pieces have a decided advantage in helping students improve their writing and thinking. The teacher can mark such pieces thoroughly, making useful comments upon them and providing suggestions for further practice -- the assignments and their evaluation become truly sequential and cumulative. Such short assignments can easily be geared to the individual skills and interests of middle years students.

Besides short- and long-answer questions, teachers can assign practical and/or experimental problems. These kinds of assignments call not so much for written answers to questions as for hands-on solutions which require students to do something. Such problems are commonly associated with subjects like home economics, industrial arts and physical education, but they can also be usefully adopted in other parts of the curriculum. Examples of this approach include:

- producing pictures, posters, collages
- composing and/or performing music
- conducting interviews
- producing films or videotapes
- organizing and staging a dramatic production
- producing a computer program
- repairing an engine
- designing a piece of equipment
- conducting a scientific experiment
- constructing something from wood, metal
- designing and/or making a garment
- cooking

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Such a list is not intended to be exhaustive, but is presented merely to illustrate that there are many hands-on activities that call for students to exercise a wide range of cognitive skills which go beyond conventional writing exercises.

THE EVALUATION OF AFFECTIVE PERFORMANCE

Middle years education concerns itself with more than students' cognitive performance. It recognizes that cognitive performance is part of and is affected by social, personal and emotional variables and it takes a wide-ranging and integrated view of students' development, paying close attention to students' needs and characteristics. Of course, this raises important issues for evaluation, especially since teachers traditionally have steered clear of any major involvement in affective areas. At the same time, teachers do realize that students' affective growth cannot be ignored, and have paid close attention to the formation of attitudes and values and to moral education. However, they have not usually sought to evaluate affective development, and such evaluation forms a very important part of middle years education.

Krathwohl's taxonomy of affective education objectives, like Bloom's in the cognitive area, is well known, but it is worth summarizing here to illustrate the types of affective goals and objectives that middle years education regards as important. Of course, it must be remembered that the cognitive and affective can never really be separated; they are both part of the same process and constantly interact, one with the other. Nonetheless, for the sake of analysis and discussion it is useful to separate them:[8]

Objectives in the affective area according to Krathwohl

1.0 Receiving (attending)
- 1.1 Awareness
- 1.2 Willingness to receive
- 1.3 Controlled or selected attention

2.0 Responding
- 2.1 Acquiescence in responding
- 2.2 Willingness to respond
- 2.3 Satisfaction in response

3.0 Valuing
- 3.1 Acceptance of a value
- 3.2 Preference for a value
- 3.3 Commitment

4.0 Organization
- 4.1 Conceptualization
- 4.2 Organization of a value system

5.0 Characterization by a value or value complex
- 5.1 Generalized set
- 5.2 Characterization

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As he did with cognitive objectives, Gronlund provides a useful elaboration of this list in terms of activities. Table 6.2 summarizes the elaboration.[9]

TABLE 6.2
Educational Objectives: Affective Domain

Illustrative General Instructional Objectives	Illustrative Behavioural Terms for Stating Specific Learning Outcomes
RECEIVING	
Listens attentively Shows awareness of the importance of learning Shows sensitivity to human needs and social problems Accepts differences of race and culture Attends closely to the classroom activities	Asks, chooses, describes, follows, gives, holds, identifies, locates, names, points to, selects, sits erect, replies, uses
RESPONDING	
Completes assigned homework Obeys school rules Participates in class discussion Completes laboratory work Volunteers for special tasks Shows interest in subject Enjoys helping others	Answers, assists, complies, conforms, discusses, greets, helps, labels, performs, practices, presents, reads, recites, reports, selects, tells, writes
VALUING	
Demonstrates belief in the democratic process Appreciates good literature (art or music) Appreciates the role of science (or other subjects) in everyday life Shows concern for the welfare of others Demonstrates problem-solving attitudes Demonstrates commitment to social improvement	Completes, describes, differentiates, explains, follows, forms, initiates, invites, joins, justifies, proposes, reads, reports, selects, shares, studies, works
ORGANIZATION	
Recognizes the need for balance between freedom and responsibility in a democracy Recognizes the role of systematic planning in solving problems Accepts responsibility for his own behaviour Understands and accepts his own strengths and limitations Formulates a life plan in harmony with his abilities, interests, and beliefs	Adheres, alters, arranges, combines, compares, completes, defends, explains, generalizes, identifies, integrates, modifies, orders, organizes, prepares, relates, synthesizes
CHARACTERIZATION BY A VALUE OR VALUE COMPLEX	
Displays safety consciousness Demonstrates self-reliance in working independently Practices cooperation in group activities Uses objective approach in problem solving Demonstrates industry, punctuality and self-discipline Maintains good health habits	Acts, discriminates, displays, influences, listens, modifies, performs, practices, proposes, qualifies, questions, revises, serves, solves, uses, verifies

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There are effective techniques of evaluation in the affective domain, that is, in the social, personal and emotional areas, for middle years students. Not to be overlooked are all those informal devices that good teachers use all the time, such as: decoding the meaning of students' comments and responses; observing behaviour patterns and reading faces. A good teacher can learn a great deal from such ordinary, everyday measures and they are valuable forms of evaluation, especially when checked against other teachers' perceptions. For example, is it only in social studies that Richard goes to sleep, or is it part of a more general pattern? Such questions can be discussed when teachers are organized into interdisciplinary teams and by using the teacher-advisor system. After all, the principal reason for the existence of teacher-advisor systems in middle years education is to provide for a personal knowledge of each student.

J. R. Fraenkel provides a three-fold classification of approaches to evaluating affective objectives: (1) self-report devices; (2) projective techniques, and (3) observational techniques.[10] This classification can be extremely useful because it embraces a wide repertoire of techniques. Here is a list of the most useful of the techniques:

1 Self-report devices
- discussion of value issues: provides an opportunity for students to express personal viewpoints and for teachers to listen to their ideas;
- value sheets: a list of controversial or provocative statements is provided, followed by questions designed to elicit personal reactions and opinions from students;
- attitude scale: a list of statements is provided, to which students indicate their reaction, usually by answering strongly agree/agree/no opinion/disagree/strongly disagree;
- value continuum: two extreme and opposing positions on an issue are identified, and students are asked to identify other intermediate positions and to indicate where they stand;
- semantic differential: where lists of opposites are provided for a series of statements (e.g., good/bad/desirable/undesirable/beautiful/ugly) and students provide a personal reaction;
- rank ordering: students differentiate among, or indicate a rating or preferences for particular statements;
- interest inventories/questionnaires: students respond to straightforward questions asking about their interests and preferences;
- journals: daily logs in which students write down their thoughts or feelings;
- thought sheets: each week students hand in a piece of paper or a card containing some idea, thought or statement which they think is important;
- opinion polls: a basic public opinion poll is gathered on an issue, indicating the class's views and attitudes;
- sociogram: a method of finding out who are regarded as popular and unpopular by their classmates.

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2 Projective techniques
- open-ended statements: students are asked to complete such statements as "If I had a million dollars, I would _____" or "If I were Prime Minister, I would _____";
- unfinished stories: students are given stories, case studies, etc., which do not contain an ending, and are asked to provide one;
- role-playing: students act out an episode requiring them to define a value position;
- stories: students are asked to write a story (poem, picture, etc.) describing their view of a particular problem.

3 Observed behaviour devices
- discussion analysis: the teacher reviews what went on in a discussion, e.g., who spoke, what ideas were expressed;
- integration analysis: the teacher keeps a record of who participated and for what reasons; e.g., remarks initiated by students can be classified and analyzed as follows:

- request for clarification)		(interest in the topic
- request for information)	can	(special knowledge
- request for opinion)	reveal	(good background
- criticism of opinion)		(originality
- offering an opinion)		(critical thinking
		(problems in understanding
		(lack of enthusiasm
		(inattentiveness

Similarly, students' responses and answers can be classified and analyzed. They include:
- answered correctly/incorrectly
- answer shows work not done
- answer shows problems of understanding
- answer shows originality
- answer shows (lack of) skill in argument
- answer shows wide general knowledge
- answer shows (lack of) interest
- answer had to be forced out

- behaviour analysis: the teacher keeps systematic record of students' behaviour over a period of time;
- teacher logbooks/diaries: at end of the day or as time permits the teacher keeps anecdotal record of classes;
- use of library and resources: the teacher notes how often students use the library as a way of assessing their attitudes to school and subject-matter;
- students' involvement in school activities: this can provide indicators of students' interests and attitudes;
- student involvement in community activities and projects: this can provide information concerning students' interests and attitudes.

Clearly, then, there are many ways in which teachers can gather information about students' personal, social and emotional development so that they can define the characteristics and needs of the students. This list is far from

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complete, but is presented to illustrate what the possibilities are. (Significantly, it omits the psychological analysis of personality and beliefs--these analyses, for proper administration, require specialized training and knowledge.) The list concentrates on fairly ordinary procedures which teachers could easily incorporate into their everyday procedures. Of course, such evaluations must always be done with proper respect for students' and parents' privacy. They must never become interrogations or public spectacles. Good judgement must always be applied. And, even more than in the case of cognitive performance, affective evaluation must always be seen for what it is: tentative and subjective.

THE EVALUATION OF PSYCHOMOTOR PERFORMANCE

It has become customary to break down the subject of educational goals and objectives into three domains: cognitive, affective and psychomotor. Given the importance of physical development of students in the middle years, psychomotor objectives and evaluations can hardly be ignored. The area of psychomotor development has not been explored as fully as the cognitive and affective areas and so any discussion of it here must inevitably be somewhat sketchy. As L. R. Gay, in Educational Evaluation and Measurement, has put it, "It may be that it is not even possible to classify psychomotor outcomes into a hierarchy of categories using a classification that is generally acceptable to most educators."[11] However, one classification has been presented by Anita Harrow. The areas she includes are:

- reflex movements
- basic fundamental movements
- perceptual abilities
- physical abilities (endurance, strength, flexibility, agility)
- skilled movements
- expressive and interpretative movements[12]

Another has been suggested by Elizabeth Simpson, who classifies psychomotor objectives into these areas:

- perception
- set
- guided response
- mechanism
- complex overt response
- adaptation
- origination[13]

As is so often the case, Gronlund is again helpful in his explanation of these categories:

Perception: The first level is concerned with the use of the sense organs to obtain cues that guide motor activity. This category ranges from sensory stimulation (awareness of a stimulus), through cue selection (selecting task-relevant cues), to translation (relating cue perception to action in a performance).

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Set: Set refers to readiness to take a particular type of action. This category includes mental set (mental readiness to act), physical set (physical readiness to act), and emotional set (willingness to act). Perception of cues serves as an important prerequisite for this level.

Guided response: Guided response is concerned with the early stages in learning a complex skill. It includes imitation (repeating an act demonstrated by the instructor) and trial and error (using a multiple-response approach to identify an appropriate response). Adequacy of performance is judged by an instructor or by a suitable set of criteria.

Mechanism: Mechanism is concerned with performance acts where the learned responses have become habitual and the movements can be performed with some confidence and proficiency. Learning outcomes at this level are concerned with performance skills of various types, but the movement patterns are less complex than they are at the next higher level.

Complex overt response: Complex overt response is concerned with the skillful performance of motor acts that involve complex movement patterns. Proficiency is indicated by a quick, smooth, accurate performance, requiring a minimum of energy. This category includes resolution of uncertainty (performs without hesitation) and automatic performance (movements are made with ease and good muscle control). Learning outcomes at this level include highly co-ordinated motor activities.

Adaptation: Adaptation is concerned with skills that are so well developed that the individual can modify movement patterns to fit special requirements or to meet a problem situation.

Origination: Origination refers to the creating of new movement patterns to fit a particular situation or specific problem. Learning outcomes at this level emphasize creativity based upon highly developed skills.

Table 6.3 shows a summary of Gronlund's elaboration of these categories.[14]

Despite the obvious difficulties and complexities involved in classifying the components of psychomotor activity, it is clear that there is a range of skills involved. Given the importance of the physical development of the students in the middle years, all teachers (not simply those in physical education) need to be aware of what these skills are and to be able to evaluate them in an informal way as part of their relationships with students.

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TABLE 6.3
Educational Objectives: Psychomotor Domain

Illustrative General Instructional Objectives	Illustrative Verbs for Stating Specific Learning Outcomes
PERCEPTION	
Recognizes malfunction by sound of machine Relates taste of food to need for seasoning Relates music to a particular dance step	Chooses, describes, detects, differentiates, distinguishes, identifies, isolates, relates, selects, separates
SET	
Knows sequence of steps in varnishing wood Demonstrates proper bodily stance for batting a ball Shows desire to type efficiently	Begins, displays, explains, moves, proceeds, reacts, responds, shows, starts, volunteers
GUIDED RESPONSE	
Performs a golf swing as demonstrated Applies first aid bandage as demonstrated Determines best sequence for preparing a meal	Assembles, builds, calibrates, constructs, dismantles, displays, dissects, fastens, fixes, grinds, heats, manipulates, measures, mends, mixes, organizes, sketches
MECHANISM	
Writes smoothly and legibly Sets up laboratory equipment Operates a slide projector Demonstrates a simple dance step	(Same list as for Guided Response)
COMPLEX OVERT RESPONSE	
Operates a power saw skillfully Demonstrates correct form in swimming Demonstrates skill in driving an automobile Performs skillfully on the violin Repairs electronic equipment quickly and accurately	(Same list as for Guided Response)
ADAPTATION	
Adjusts tennis play to counteract opponent's style Modifies swimming strokes to fit the roughness of the water	Adapts, alters, changes, rearranges, reorganizes, revises, varies
ORIGINATION	
Creates a dance step Creates a musical composition Designs a new dress style	Arranges, combines, composes, constructs, creates, designs, originates

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MARKING STUDENTS' WORK

This chapter has repeatedly stressed the importance of the diagnostic aspect of evaluation, arguing that evaluation should be used primarily to provide information for the improvement of teaching and learning. For students, the importance of evaluation is that it tells them -- or should tell them -- not only how well or badly they have done on a particular piece of work but why they got a particular mark and what should be done for improvement. In other words, any marks given to students' work should be justifiable. In the case of short answers of the right/wrong type, this is not especially difficult. In the case of answers calling for a statement of personal opinion or the presentation of an argument, it is more complex. When essays and similar assignments are marked, there should be clearly understood criteria for such marking and, when it is possible, there should be a model answer. Further, as the students' work is marked, the teacher should write as many comments as possible so that students can see where they did well or badly, and it is very important that there be a balanced mix of positive and negative comments. There is an unfortunate tendency when marking students' work -- at any level -- to single out only those points which need correction and not draw attention to the praiseworthy elements. One way of avoiding this fault with middle years students is to use different colours, say red for negative comments and green for positive comments, and then make sure that the colours balance.

It is often useful also to break down the total mark (e.g., 15/20) into smaller, more specific elements. Some obvious and important ones are: (1) ideas, (2) organization, (3) style, (4) comprehensiveness, (5) references and sources, (6) spelling and grammar, (7) neatness. Teachers can easily come up with their own classifications and weightings.

Marking is, of course, inevitably subjective, and it is no easy thing to give work back to a student when one knows that the student will be disappointed. Marks can serve as either a motivator or a disincentive for students, especially for those who easily live up (or down) to their teachers' expectations. There is, however, no known way to remove the subjective element from marking. Even so-called objective tests are objective only in that they have an answer which is definitely right and wrong; even this is often not as simple as it seems -- the choice of items for objective testing, for instance, is itself a matter of considerable subjectivity.

The remedy appears to be to accept the fact that marking is inevitably subjective and to make it as fair and open as possible. This can be done in several ways: marks should always be explained to students; students should always have a chance to appeal, to ask for a remarking and to explain their work; students should always be given a chance to do a piece of work again. After all, the reason for evaluation is not to fail students but to help them improve. The key is mastery, not elimination. Marking middle years students' work should be criterion-referenced, not norm-referenced; that is

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to say, students' work should be assessed against some predefined standard of competence (mastery) and not competitively against the work of others. Marking on a curve (placing a certain proportion of students at the bottom end of the scale) has no place in middle years teaching.

Another way to handle the problem of subjectivity in marking is to involve students themselves in the process. One method allows for total self-evaluation — students mark their own work, defend their choice of marks and, to all intents and purposes, take responsibility for the evaluation. This method is valuable in particular circumstances, but it raises some obvious problems. A more cautious version of this method may be more appropriate: students give themselves a mark and the teacher also marks the work; but the students do not show the mark to their teacher. Student and teacher then compare marks and if there is a serious discrepancy, they discuss some way of resolving it.

It is unwise to give middle years youngsters total responsibility for their own evaluation. It is not only unwise, but it is unfair, because middle years students are still very young and need their teachers' advice and guidance. It is the teacher's responsibility to set standards (provided of course that they are reasonable) and to help students meet them. The key point is that evaluation must always be fair, open and helpful.

To be helpful, marks should be given as soon as possible after students have completed a piece of work. It is discouraging for students to have to wait a month or more to get back a test or an essay. In their middle years especially, students need and want instant feedback. And when work is given back, it should be discussed and explained. Teachers should read out (anonymously of course) samples of good and bad work. They should explain common errors and demonstrate what a good answer might be. Handing back work in this way can be very valuable.

REPORTING TO PARENTS

Report cards are the primary vehicle for reporting the results of evaluation to parents. They provide the all-important link between school and home and they provide a specific focus for parent-teacher visits. Therefore, report cards need to be as clear and as comprehensive as possible to be helpful. However, as was said earlier in this chapter, there is nothing particularly helpful about report cards which allow only for a single end-of-term or semester mark and a more or less desultory comment, a comment which is often computerized. Despite the work it would create for teachers, a more detailed scheme of reporting is required. Parents have the right to know what topics or subject-matter have been dealt with, and they have the right to know what objectives were set (knowledge, skills and attitudes/values), and in which areas their children did well or badly. Some form of narrative reporting is therefore needed and middle years teachers would do better to imitate their elementary school colleagues rather than those in the high school. One helpful suggestion for keeping parents informed is that at the beginning of each term, teachers send to parents a brief statement of what

their children will be doing in their classes. Careful attention should be paid to the format of report cards so that they are easy to read. And it is important that technical language be avoided.

Unfortunately, report cards surprisingly often concentrate on those aspects of education which (following Stenhouse) are considered training and instruction and ignore the aspects, initiation and induction. In other words, they emphasize duty and obedience and neglect creativity and originality. Consider these examples:

A Manitoba grade 6 report
- gets along with others
- uses time to good advantage
- completes assignments
- listens well
- works quietly and independently
- is dependable
- produces neat work
- takes criticism and disappointment well

A Manitoba junior high school report card
- assignments are well done
- is well-prepared
- displays good behaviour
- contributes to discussion
- is working below capability
- is doing all he/she can
- is inattentive
- is disruptive
- seems interested

A teaching methods text
- co-operates with others
- shares ideas and materials
- follows directions
- accepts suggestions
- is sensitive to others
- assumes responsibility
- is proud of his/her work

The point about these examples is not that the comments are wrong (although one wonders about that damning phrase, "doing all that he/she can"), but that they omit significant information. They all emphasize those aspects of student behaviour which consist essentially of following orders, obeying rules and being respectful. It is hardly to advocate anarchy to suggest that it would be well to add some categories which allow comment upon students' originality, autonomy, creativity, problem-solving skills and so forth. To repeat a constant theme in this chapter: evaluation must be consistent with goals. And report cards must reflect this consistency.

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CONCLUSION: GUIDELINES FOR EVALUATION

Evaluation is a means, not an end: There is no obvious merit in accumulating a set of figures or letter grades in a mark book simply to decide that Jane has a term mark of 62 percent or C+ or whatever. Without elaboration, the mark says nothing. It is only of real help if all concerned (students, parents, teachers) know what 62 percent means: Why did she not get more (or less)? What did she do satisfactorily, badly or well? What should she do to improve? What can her teachers do to help? Her parents? And so on.

Evaluation exists to provide information about and to improve teaching and learning: Evaluation should always be diagnostic. It is not enough for students to write their tests, do their assignments, get their marks and simply move on to the next unit. Evaluation must include a consideration of what was done, of where it was good and bad, and must help the student learn something that will be useful in the future.

Evaluation must be consistent with and measure the achievement of goals and objectives: This, of course, is a much-repeated injunction. In spite of this, we often find a gap between what we claim to be teaching and what we do teach. In the middle years, successful and worthwhile evaluation depends upon teachers properly understanding the goals of a middle years program.

Evaluation must be concerned with both cognitive and non-cognitive performance and development: This is especially true in the middle years where personal, emotional and social development are so variable and are so closely connected with cognitive learning. Teachers must be able to diagnose, at least in a general way, students' levels of development and to organize their teaching appropriately.

Evaluation should take a variety of forms: Evaluation must be both formal and informal, and the informal evaluation must be continual. In teaching any given topic or unit, teachers should use diagnostic, formative and summative evaluation. Tests, assignments, class discussion and all other forms of student work should incorporate a wide range of questions.

Evaluation should emphasize higher-order skills: Many tests and assignments over-emphasize factual knowledge and memory and neglect higher-order skills such as analysis, synthesis and evaluation. To the maximum extent all levels of the various taxonomies of cognitive objectives should be included in evaluation.

Evaluation inevitably contains much that is subjective: Evaluation can never be completely objective. Jacques Barzun is right when he says that "an objective test of mind is a contradiction in terms." It is precisely this question of objectivity versus subjectivity that makes evaluation such

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a problem, especially for the middle years students, whose concern for fairness is at a peak. The only solution is to evaluate as fairly, as consistently, as openly, and as humanely as possible.

Further reference can be made to English language arts curriculum guides for examples of evaluation check lists.

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7. DISCIPLINE

THE IMPORTANCE OF THE DISCIPLINE QUESTION

Discipline is a major concern of both teachers and parents. Indeed, parents often judge a school by the extent and quality of its "discipline." Discipline is important to students too, for they often judge their teachers by whether or not, or to what extent, they can maintain order in the classrooms. It is obvious that teachers cannot teach, nor can students learn, unless there is order in the classroom. The most imaginative teaching strategies and the most exciting curriculum will be of no avail in the absence of a good working atmosphere. Despite the importance of discipline, however, teachers commonly report a lack of training in disciplinary techniques. This is of particular concern when dealing with junior high and middle years students, for there is a pervasive and widespread belief that this period is, above all, characterized by disciplinary problems. It is a widely held view (though it is debatable) that elementary school students are too young to create serious disciplinary problems, and that high school students are too old and too sophisticated (and in any case they do not have to attend after sixteen) to cause serious disciplinary problems. But between grades seven and nine students are old and big enough to cause problems, they are at a stage when school is not to such a large extent at the centre of their lives, and they are testing the limits of acceptable behaviour. Traditionally, junior high schools have been unpopular teaching assignments with many teachers — who sometimes see them as way stations on the road to senior high. (There has, of course, always been a minority of teachers dedicated to and enthusiastic about working with junior high youngsters.) Indeed, the general perception of junior high schools as hotbeds of trouble, even as "jungles," is itself one of the best arguments for adopting a middle years approach. And it is safe to say that the middle years approach is changing the traditional perception.

Finally, the question of discipline is particularly important in middle years schools because establishing good discipline is an especially powerful way of developing good citizenship. Classroom discipline is more than a pedagogical issue; it is also a form of political education. Of course, all education is political in the sense that it is ultimately bound up with the future of society. It is no coincidence that so many of the great names in educational theory — Plato, Locke, Rousseau, Dewey, for instance — are equally well known as social and political philosophers.

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Within the schools, citizenship is sometimes regarded as the particular responsibility of social studies. However, every teacher is a teacher of citizenship, because citizenship involves not just a knowledge of government and politics (this is no more than mere civics) but a whole cluster of values, attitudes, dispositions and ways of behaving involving such elements as participation, efficacy, concern for others, self-regard and justice. Disciplinary procedures and regulations are obviously important in developing these areas.

Students probably learn more valuable lessons about citizenship from the nature and enforcement of classroom and school rules than they do from any social studies lesson. Discipline involves more than simply establishing order in a classroom or having what is generally regarded a well-run school. These criteria are important, of course, but what is crucial is the nature and quality of that order. Unfortunately, though understandably, the immediate pressures of teaching often lead teachers to place a premium upon the establishment of order for its own sake, with no thought given to its long-term implications for citizenship.

WHAT IS DISCIPLINE?

In the English language the word discipline usually conjures negative visions of sanctions and penalties, of external conformity to established rules. If children do what they were told, obey the rules, stay out of trouble, do not make too much noise and so on, a school or a classroom is often said to have "good discipline." This is not, however, the educational sense of the word, for education must be concerned with discipline in the sense of self-discipline, not in the sense of external conformity. As Horace Mann put it in 1845, "One of the highest and most valuable objects, to which the influences of a school can be made conducive, consists of training our children to self-government."[1] It should be emphasized that self-government here is used not only in the sense of political democracy, but also in the sense of self-control, autonomy and responsibility. To continue with Horace Mann: "In order that men may be prepared for self-government, their apprenticeship must commence in childhood. The great moral attribute of self-government cannot be born and matured in a day; and if school children are not trained to it, we only prepare ourselves for disappointment, if we expect it from grown men."[2] Indeed, self-discipline is of fundamental importance not only for the long-term social good but also for all kinds of educational reasons. It is fundamental to cognitive achievement and to the level of performance in a wide variety of other tasks, both in and out of school.[3] It cannot be stressed strongly enough that middle years education is concerned not only with academic goals but also with the personal and social development of students: education is very much a matter of helping students come to terms with their emerging autonomy and independence.

The quality of school discipline (properly understood) and the manner of its enforcement are fundamental to the success of any middle years program. If we are to achieve good middle years education, we must overcome a long

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tradition of school discipline which was perceived very differently. The task will be far from easy, but it is of the utmost importance that we do it.

There is overwhelming evidence that, with the exception of the work of individual teachers here and there, we have traditionally emphasized in schools not self-discipline but simple obedience. As R. D. Hess and J. V. Torney put it in a large-scale investigation of civic education in the United States, "Compliance to rules and authority is the major focus of civics education in the elementary schools."[4] As Lawrence Wylie observed in a French school, when told by a teacher that her young students had nothing important to learn: "The children, however, do learn important lessons. They learn to sit still for long periods. They learn to accept the discipline of the school. They even learn about learning -- that is, they are impressed with the fact that to learn means to copy or to repeat what the teacher tells them."[5] Similarly, D. Hansen and M. Herrington, in an English study, noted of young children that "most of these children expect the teacher to act as the boss; to direct, initiate and control learning; to be judge and jury of work and conduct."[6] Here in Canada one need turn only to a typical grade 6 report card which has teachers report under such categories as: gets along with others; uses time to good advantage; completes assignments; works quietly and independently; listens well; is dependable; produces neat work; takes criticism well. There is nothing wrong with any of these qualities but the categories are incomplete. Together, the qualities listed above emphasize passiveness, duty, obedience. They ignore such important educational goals as creativity, originality and critical thought. In view of such evidence — and there is a good deal of it — it is perhaps not surprising that the Ten Nation Survey of Civic Education concluded that "perhaps a hierarchical organization such as the school is not the right setting for inculcating democratic values."[7]

This is not to say that schools are unhappy places populated by resentful students always looking for ways to throw off oppression and tyranny. Such is obviously not the case. What the evidence is saying is that schools have in many cases become authoritarian, albeit often with the best of motives, and have not in their day-to-day practices been able to foster and stimulate self-discipline and autonomy in their students. Students may well find this state of affairs satisfactory — indeed, they usually do — if they understand the rules, and if the rules are administered fairly and without malice, they find a certain degree of security. However, whether this is in their best interests or whether it is all that can be done are different questions altogether.

To repeat, the primary objective of discipline in the middle years is teaching self-discipline to the students. This objective is accomplished not so much by what teachers teach when they deal with their subject matter (although, of course, this cannot be ignored) but by the general climate of schools and classrooms — a climate which is created by the kind of rules that exist in a school and the way the rules are enforced. All this, however, is general and theoretical in nature; it is time now to turn to more practical and specific considerations.

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DIAGNOSIS: THE FIRST STEP

In even the best-run school and the most stimulating classroom, discipline problems are likely to occur from time to time and, unless one adopts the hands-off policies that characterized Summerhill, something will have to be done about the problems. Aside from taking whatever action is necessary in the short term simply to stop disruption, the first and most important step to take is to start making distinctions. One kind of overt action, such as rudeness or disruptiveness for instance, can spring from many different causes. And different causes imply different treatments. Discipline problems may be caused by any of the following:

1. Viciousness, e.g., a calculated, deliberate provocation;
2. Power-play, e.g., an attempt by a student or students to control the class, such as sometimes happens to substitute teachers;
3. Ebullience, e.g., an inability to stop "horsing around," a constant playing of the clown;
4. Ignorance, e.g., when a student simply does not know any better or different way of behaving;
5. Boredom, e.g., an inability to find anything in the lesson, or indeed in the school, of interest or significance;
6. Thoughtlessness, e.g., when a student simply does something without thinking;
7. Distraction, e.g., when students' minds are still on a previous lesson or activity;
8. Emotional upset, e.g., the death of a relative or a friend.

The point about such a list — and many others could be drawn up — is that it helps the teacher focus on the cause of the behaviour in question and that it implies a series of different remedies. Generally, the list appears in order of decreasing seriousness. It would be a harsh teacher, for example, who would do much about misbehaviour arising from ignorance or thoughtlessness, except to speak to the student and explain what was expected. Misbehaviour arising from boredom, on the other hand, suggests a careful rethinking of curriculum content and teaching strategies. If a particular novel, for instance, has no appeal for students and if all attempts to make it interesting are unsuccessful, perhaps there is an alternative. If a particular social studies topic provokes yawns and indifference, perhaps the time allotted to it can be reduced in order to give more time to something more interesting. After all, if students are not learning anything it hardly seems worthwhile to persist. And if they are not learning anything of interest through the subject-matter, students may well look for ways of adding some spice to the lesson, thus creating discipline problems. This is not to say that students should be taught only what interests them or that the curriculum should be decided by a daily vote. Usually, teaching strategies which inspire student involvement and input will produce interest even if the topics themselves are not particularly exciting. Some examples are brain-storming, gaming and simulation and computer use. To summarize the discussion in chapter 4, the key principles in middle years teaching are: concretization; experiential learning; and, problem-posing. The application of this model will eliminate or at least minimize many discipline problems.

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It should be noted that problems arising from viciousness or power-plays will call for particular remedies. They are more serious and more deeply rooted than the others. Problems arising from viciousness may indeed call for assistance from psychologists, social workers and other specialists. This kind of problem may be characterized by a straightforward contest of wills between teacher and students, for example, in attempts by students to control the classroom.

It must be admitted that there are cases where discipline problems, even the minor ones, are so abundant that no effective learning or teaching can take place. We all know the scenario in which students move from seat to seat, talk to each other at will, throw erasers, balls of paper and other objects, retire into their own private worlds, and generally make it plain that their minds are anywhere but on the lesson. There are various responses to this kind of situation. One is simply to give up, in view of the magnitude of the problems, and to write off the students as unmotivated or non-academic. Another is to try and teach as though nothing untoward is happening and to concentrate on the students who appear to be paying attention. Another is to find some way of keeping the students occupied, usually with plenty of busy-work consisting of completing worksheets or copying notes from the overhead projector, and punctuated by reminders that the topic is important because "it will be on the test." One can sympathize with all these approaches: they are rational ways by which teachers can cope with unbearable situtions. Nonetheless, the fact remains that all of them are destructive because they avoid the necessity of asking radical questions about curriculum and teaching strategies. It is, after all, an axiom of middle years teaching that we must begin where the students are; this may well mean drastically revising the prescribed curriculum and in some cases even abandoning it. Fortunately, provincial curriculum guides are flexible and much can be done to adjust them. No teacher, however, should feel a total prisoner of the guides; he or she can always offer something that is perhaps more appropriate to the situation.

Sometimes, of course, the problem will lie not with the curriculum or the teaching but in social and economic conditions over which teachers have little or no control. For instance, it is not easy for students suffering from racial discrimination, from parental neglect, or from all the accumulated effects of poverty, to take a lively interest in their school work. (One is reminded of the story of the inner-city student asked by his teacher how many legs a centipede had. "Man!" was his reply, "I wish I had your problems.") There is not a great deal that schools acting on their own can do about these kinds of problems, but they can at least begin to tackle them by working in conjunction with community agencies and parents.

Nonetheless, as noted above, there are discipline problems which derive from irrelevant curricula and improper teaching strategies, which can be dealt with by schools. The approaches to teaching and to programs described in chapters 4 and 5 can be helpful in remedying them. Advisor systems, walking advisement, interdisciplinary teaming, individualized instruction and other middle years measures have all been found to reduce substantially the types of problems traditionally associated with the junior high school.

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THE IMPORTANCE OF PREVENTION

Obviously it is better to prevent discipline problems from ever arising than to have to deal with them after the fact. Although it is unlikely that we shall ever reach this state of perfection, it remains true that many discipline problems occur needlessly and could have been prevented with a little forethought. Here, for example, is a list of dos and don'ts which will help eliminate many of the everyday problems which, though minor, are nonetheless irritating:

Anticipate (be prepared)
- have carefully thought-out lesson plans;
- be in the room first if at all possible;
- have extra supplies and materials for students who forget theirs;
- have equipment set up and ready;
- have standby plans for when things do not work.

Make instructions and requirements explicit
- make sure everyone knows what is required;
- do not talk until everyone can hear you;
- write important instructions on board or overhead;
- maintain standing display of deadlines;

Avoid disruptive situations
- keep desks and tables clear if students' bags and possessions create problems;
- give out papers and supplies in an orderly way;
- students should come to you one at a time.

Maintain credibility
- display an air of confidence and poise;
- show that you have a clear idea of what the lesson is about and how you want it to go;
- if you must make a threat, enforce it;
- avoid blanket threats and ultimata;
- if you deliberately allow something to go by, make sure that students involved realize that you know;
- avoid remarks which leave you open to an impertinent answer (e.g., "What do you think I am?").

Do not use your "ultimate weapon" immediately
- begin with requests, not commands;
- give reasons for requests;
- do not lose your temper;
- act only after due warnings.

Avoid public confrontations
- do not ridicule students;
- if you must confront a student, try not to do it in front of others.

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Know your students
. knowing names is obviously helpful;
. talk to students informally (even a simple greeting) when you see them;
. know something about students (hobbies, interests, etc.) to which you can refer.

Use your eyes
. when teaching, try to look at all students, to read their faces;
. move around the room when necessary;
. stand near or gesture to restless students in order to head off trouble without breaking the flow of the lesson.

Use reinforcement
. instead of simply responding to bad behaviour, reinforce good behaviour also. If noisy Johnny stays quiet for once, compliment him.

Make distinctions
. distinguish among different kinds and causes of discipline problems;
. use appropriate sanctions.

Be consistent
. keep rules to a bare minimum;
. make sure that rules can be rationally defended;
. make sure that rules are known and understood;
. enforce the rules fairly and consistently.

Involve the students
. remember the importance of informal conversation, e.g., before the beginning or at the end of a lesson or in the halls and in chance meetings;
. use teaching strategies that call for genuine involvement of students;
. discuss discipline problems with students if necessary.

Some researchers have identified personal qualities of teachers which can minimize discipline problems. Of these, the most useful is J. S. Kounin's research, which concentrates on three qualities: "with-itness"; "overlappingness"; and, ease of transitions.[8] By "with-itness," Kounin means the quality of knowing what is going on in a classroom (having eyes in the back of one's head) and, equally important, demonstrating to all involved that one knows what is going on. "Overlappingness" describes the quality of being able to attend to two (or more) things at once, perhaps working with one group of students while scanning others, or monitoring the class while attending to a visitor at the door. "Ease of transitions" refers to the ability to move from one phase of a lesson to another clearly and smoothly and avoiding distractions.

All such descriptions and lists of dos and don'ts, however, while useful, are more or less mechanical formulations of what is basic interaction between teachers and students. Nothing can substitute for an interesting lesson, well-taught, on a worthwhile topic. Good teaching and a relevant curriculum remain the answer to most discipline problems. And, as has been already noted, the introduction of the approaches of middle years education

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goes a long way to reducing many traditional discipline problems. It would be foolish, however, to claim that introducing them will eliminate the problems totally.

Much obviously depends also on school and classroom climate, for if students feel that they "belong" in a classroom or a school they are not likely to create too many discipline problems. However, any time several hundred youngsters are collected together, with their assorted personal and family histories, there are likely to be at least a few problems.

There are three obvious factors relating to classroom climate: the teacher, the students and the physical setting of the classroom. The teacher's contribution can, in turn, be broken down into four components: personality, status, role and skills. Similarly, students' contributions can be subdivided into three categories: their attitude to each other; their attitude to the teacher; and their attitude to the subject and the school generally.

It seems that some personality traits in teachers are better than others in establishing a good classroom climate. Teachers have been described, for instance, as either dominative or integrative. The dominative type works against students and is very much concerned with personal power and authority. The dominative teacher issues orders, controls ideas, uses threat and blame and avoids exchange of opinions with students. In contrast, the integrative teacher works with students, uses requests and suggestions rather than orders, consults students and encourages the exchange of ideas. The evidence is that the students' behaviour changes according to the teacher's style.

Another researcher, Carl Rogers, has suggested that the teachers who work best with students all possess certain traits.[9] They are "real," that is, they do not hide behind any kind of "teacher" mask. They value and trust their students and empathize with them. They work on the assumption that students want to learn and that they learn best when they see that what they are learning is relevant to their own goals.

The category of personality overlaps with that of the status of the teacher. Clearly, dominative teachers will want to achieve a status different from that of teachers who are integrative. Teachers who set themselves up as authority figures in their classrooms, either as disciplinarians or as academic experts, will find it difficult to get students to take discussion seriously. Students of dominative teachers will not have been encouraged to participate in lessons and they will feel they have nothing worth contributing in view of their teacher's encyclopaedic knowledge. One of the trickier problems in teaching is for teachers to convey their knowledge of and enthusiasm for their subject without overwhelming their students.

As with status, so with role: teachers will find it necessary to adopt a variety of roles in the classroom. What is important is to be able to adopt different roles as different circumstances require them. Bruce Joyce, for example, has described a range of teaching "models" and the roles and strategies they require, including group investigation, jurisprudential

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approaches, social inquiry, laboratory methods, concept attainment, inductive approaches, inquiry training, synectics, awareness training.[10] His whole discussion is well worth pursuing by anyone interested in widening his or her teaching repertoire. Herbert Thelan has described seven ways of organizing teaching, each of which requires the teacher to assume a different role.[11] These are: Socratic discussion; town meeting; apprenticeship; the army model; business deal; the good old team; the guided tour.

Since teachers need to be able to move among a variety of roles, they need to have at their command a wide range of skills. N. A. Flanders, for example, has argued that the skills relating to what he calls "indirect" teaching produce a more positive classroom climate than those relating to "direct" teaching.[12] The skills relating to indirect teaching include accepting, clarifying and supporting students' ideas and feelings, praising and encouraging, and asking questions which encourage participation and which solicit ideas. The skills relative to direct teaching include lecturing, giving orders, criticizing and justifying one's own authority. Other skills that might help improve classroom climate include the ability to build teaching upon problems that students see as worthwhile, to provide for student participation, to cater to different styles of learning, and to provide a wide range of student resources. The list could go on and on, but the point is clear: there are skills that teachers can learn and apply which can influence classroom climate. In this regard, Steven Bossert's work is of interst.[13] He has noted that different teaching strategies produce their own imperatives, forcing teachers to act and students to react in certain ways. For example, teaching a whole class together using recitation or some such technique makes it difficult to provide individual assistance to students since it is awkward to hold up the whole class for one student. In such whole-class approaches, high achievers dominate teachers' attention, since they are usually able to answer the questions and to volunteer information. Teaching a whole class means that teachers have to provide a uniform, publicly visible system of authority: when misbehaviour occurs it has to be corrected in view of the whole class and this makes it difficult to apply a personal touch. It also means that students cannot have their misbehaviour explained or discussed since the whole class could be held up. Thus, the teacher becomes the impersonal enforcer of universal rules, rather than the more personal explainer of misconduct. Teaching a whole class together makes it impossible for teachers to become involved in an activity as participants along with their pupils. By contrast, a classroom organization which allows for students to work on a variety of tasks at different levels makes it possible to work with students in a much more personal way. The point of Bossert's argument is not to show that one approach is in some way better than another, but that different teaching strategies produce different effects, including effects on teacher-student relationships.

Teachers, then, through their personality, status, role and skills, play a crucial part in establishing classroom climate. So, of course, do students. They have their own agenda, their own definition of the situation. Their attitudes to each other, to school and to the subject they are studying, and to their teacher, all affect what happens in the classroom. It often happen

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that a student teacher goes into his or her first class full of wonderful ideas only to meet a stone wall of student resistance. Over the years, students build up their own definition of what teaching is and it is not something that can be quickly overcome. If, for example, students have come to define teachers as people who give notes and who lecture a great deal, they will not adjust very quickly to someone who wants them to begin role-playing. To no one's surprise, there are no magic solutions to the problems of helping such students redefine their expectations. There are, however, some goals to work towards. First, a more positive climate, one in which students feel they have some voice in what is happening in the class, can be established. Leadership is best when it comes from the group and not just from the teacher. Second, students can be helped to feel that they are accepted by each other and by their teacher. Third, there should be a reasonably broad definition of what is acceptable behaviour, so that there is not a constant niggling about rules. Fourth, there should be a reasonable amount of communication among students.

Finally, the physical arrangements of a room can help or hinder the maintenance of a positive classroom climate. In his book What Culture? What Heritage?, A. B. Hodgetts stresses the value of properly equipped rooms and draws attention to the fact that they are rare. He notes that "it is more than coincidence that almost all of the outstanding Canadian studies lessons we observed were held in history or social studies laboratories."[14] It would be redundant to belabour this point, but no discussion of classroom climate can be complete without drawing attention to it.

SCHOOL ADMINISTRATORS

In middle years schools, administrators have their usual powers and resources to handle discipline problems. Referring a student to the office, in the middle years as in the conventional junior high school, is always a classroom teacher's ultimate sanction. Principals and vice-principals must deal with problems that are beyond the scope of any individual teacher. The administrators have the authority to suspend students, to deal with external authorities (police, social service agencies, and so on), and to communicate with parents. At times they may also have to mediate between teachers and students. These kinds of activities obviously call for a good deal of sensitivity and tact.

School administrators have a major part to play in establishing a good school climate which is so important in reducing discipline problems. By working co-operatively with teachers and by making decisions collaboratively, administrators can go a long way towards establishing a comfortable working atmosphere, a positive climate which will, of course, affect students. Administrators should make themselves accessible to students. Much can be accomplished by walking the hallways to establish a presence, to provide an opportunity to meet students informally and whenever possible by name. Also valuable, whenever it can be fitted into an administrator's schedule, is involvement in school activities, for example, taking an advisor group or coaching a team.

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Administrators, of course, should always work closely with teachers. They should know which teachers are particularly prone to having discipline problems and should be able to work with them in order to improve their teaching. As well, administrators should play important roles in the formulation and development of the more general professional development program of the school.

GUIDANCE COUNSELLORS AND RESOURCE TEACHERS

It is a key principle of middle years education that all teachers play their part in the counselling role of the school through such programs as advisor groups, walking advisement, interdisciplinary teams and general interaction with students. Nonetheless, there is still an important role for specialized guidance counsellors and resource teachers in middle years education. Counsellors will retain their responsibility for various kinds of testing, for example, testing for career planning. Counsellors will, in addition, be able to provide special assistance to teachers and to students in cases where discipline problems arise from emotional, psychological or family concerns. And they should be available to work with students who need special academic or personal help. Since the role of guidance counsellors and resource teachers are well known there is little need to say anything more about them here, except to emphasize that they do have a very important part to play in middle years education. Counsellors are useful especially in the middle years since this is a stage in which youngsters' social, personal and emotional concerns can loom very large and can get in the way of academic learning.

PARENTS

Parents can play an extremely useful part in helping teachers deal with discipline problems. It can be taken for granted that the majority of parents want to do the best by their children and are anxious for them to do well at school. Teachers have long known that consulting with parents can be very helpful in clearing up problems with students. Indeed, "I'm going to call your mother (or father)," is often used as a threat to get students to do what they are told, and the tactic of asking parents to report to the principal's office to discuss their child's conduct has often been used by schools as part of their armoury of sanctions. There is, however, something negative and punitive about these approaches, although they undoubtedly have their uses. The particular contribution of middle years education is to insist that contact with parents should not be limited to "emergencies," and to occasions when it is necessary to "deal with" a student, but that contact should be long-term, continuous and seen as a normal part of school routine. When this is done, a partnership usually develops between school and home which is to everyone's benefit and which can go a long way towards reducing potential discipline problems.

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WHAT SHOULD BE DONE?

The concern for discipline in schools is demonstrated by the interest taken by many teachers in such general approaches as behaviour modification, reality therapy, assertive discipline, and others, all of which have been adopted or adapted in various schools. This is not the place to discuss them since they are fairly well known to teachers and since it is easy to find information about them. Nor is this the place to give them, so to speak, official approval or otherwise. Similarly, this sourcebook is not the vehicle for espousing personal opinions.[15] It is up to school staffs to use their professional judgement about whether or not to adopt a particular policy about discipline.

The crucial point is that such decisions must be made in as informed a way as possible in light of the following principles:

1 Disciplinary policies and practices are a powerful form of learning for students and may well have as much effect on them as does the formal curriculum.

2 Disciplinary policies and practices are above all a form of education for citizenship.

3 The goal of disciplinary policies and practices is that students learn self-discipline, that is, that they learn to exercise personal autonomy in a responsible way.

4 Self-discipline means that students make their own decisions, and not that they simply do what they are expected without being told.

5 Any disciplinary policy or practice that does not contribute to self-discipline as thus defined must be rejected or, if absolutely necessary, seen as only a short-term expedient.

6 Disciplinary policies and practices should aim at the prevention of discipline problems rather than the correction of them: to this end appropriate curricula and teaching strategies, positive school and classroom climate, and regular contact with parents are crucial.

7 Discipline is of particular importance in the middle years given the distinctive characteristics of this stage of development.

Therefore, we must get away from the traditional approaches to school discipline which have been largely concerned with the securing of obedience and minimizing disruptions and which, in the process, convey a clear message that students are not to be trusted. Such, at least, is the implication of many of the titles of books dealing with discipline: Changing Students Behaviour; Help! These Kids Are Driving Me Crazy!; Survival Kit For Teaching; Making It Till Friday. The impression is created that the class-

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room is a battleground in which besieged teachers confront hostile students. Such is the message also of the lists of rules sometimes seen on display in junior high classrooms, of which this is an example:

Rules
- Students will follow the directions of all teachers and superiors the first time.
- Students shall be on time for class.
- Students shall have all equipment and supplies at all times.
- Students will keep their hands, feet and all other objects to themselves.
- Students will practice good citizenship and courtesy to all teachers and to each other.

One can only speculate on the overall effect of students' seeing such rules displayed every time they enter a classroom. They are clearly being told to "shape up" (although they do not have the option to "ship out") and that they are not really to be trusted. It would be encouraging to see some other rules also, for example: "Students must think for themselves;" and "Students must be creative." Indeed, if such rules are to be posted at all, there seems no reason why students should not themselves be involved in formulating them.

This is not to say that rules are not useful or that discipline does not matter. What does matter, however, is the content of the rules and the way they are administered and established. It may be difficult to remember when dealing with those unruly grade sevens, but the fact is that in dealing with them we are not only seeking to establish order, but we are also teaching powerful lessons about personal development, self-concept and social responsibility.

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8. ORGANIZING A MIDDLE YEARS PROGRAM

THE IMPORTANCE OF IMPLEMENTATION

It is now generally accepted that many of the innovations made in education over the last two or three decades have not, in fact, made much difference to what happens in classrooms. And where they have made a difference, the results are not what those responsible for the innovations expected or anticipated. A wide gulf often exists between the innovators and the classroom teachers who have to implement the innovations. For example, Martin Shipman describes a major curriculum project in England in which some of the teachers involved did not even know they were part of the project.[1] Investigations in the United States have revealed that the richly funded, intellectually powerful and widely reported projects in the new mathematics, the new science and the new social studies have not, in fact, been adopted in many classrooms.[2] The same is true of such innovations as team teaching, continuous progress and open area: they have, at best, come and gone, while teachers have continued to work in the same old ways; they have, at worst, often made teachers' tasks unnecessarily difficult. In short, while the last twenty or thirty years have seen a good deal of innovation, there has not been much implementation. Indeed, the literature on implementation makes for depressing reading, because it reveals project after project that never really got beyond a few experimental classrooms.[3]

The reasons for this failure are many and varied, but two in particular stand out. First, innovative projects have often failed to take into account teachers' everyday, practical problems. They have operated by assuming ideal conditions including motivated students, specialist teachers, adequate resources and sympathetic colleagues. Not surprisingly, these innovations appeared irrelevant to teachers faced with a wide range of immediate and pressing problems, themselves trained and educated under different assumptions from those of the innovators. Second, innovations were often, as it were, foisted on teachers with little or no advance warning or consultation and little more preparation than a pep talk or a short workshop. Not involved from the beginning, with no means of providing reaction, suggestion or any kind of input, it is hardly surprising if teachers felt little commitment to or enthusiasm for such innovations, especially when the innovations offered little or no solutions to their everyday problems.

The obvious lesson here is that, if a middle years program is to be introduced, whether in a particular school or across a school division, then

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careful attention must be given to questions of implementation. It is obviously not enough for an administrator to issue a directive or a consultant to initiate a new policy. As recent research has shown, implementation is a much more complex procedure.[4] J. Wiles has estimated that "while the amount of preparation time required to open a real middle school is dependent upon environmental conditions in the community, a minimum period appears to be eighteen to twenty-four months."[5] At the very least, a middle years program will be successfully introduced and implemented only if: the teachers involved are committed to the innovation, and have been actively involved in its planning and gestation; the parents of the students involved are informed and co-operative and that they have had some voice in the planning process; the other schools involved, that is, the elementary schools which send children to the middle years school and the high schools which receive them from the middle years school, are kept informed and are encouraged to make suggestions; and, the officials in the administrative hierarchy are supportive.

Therefore, it is crucial that a plan be constructed. Wiles suggests nine distinct steps which are important in any planning process:

1. Awareness and study phases;
2. Educating community and gaining commitments;
3. Budgetting for development;
4. Selection of staff, site;
5. Construction of detailed implementation plan;
6. Intensive training of staff;
7. Development of curriculum;
8. Construction or conversion of site;
9. Opening of a middle school.[6]

Wiles also stresses the importance of what he calls "developmental staging," in which five stages of implementation are identified and plotted against a series of important middle years characteristics.[7] In his model, stage 1 describes the reality of the current situation in any given school or division. Stage 2 is one of awareness of the possibility and desirability of change and might include some minor modifications to the existing state of affairs. Stage 3 is an experimental stage in which changes are tested. Stage 4 makes the adoption and institutionalization of new policies and procedures as represented by changed school practices, sanctioned and approved officially. Stage 5 describes the ideal state, one which may never be totally attained but which represents the hoped-for goal. Wiles usefully plots these stages in chart form. See table 8.1.[8]

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Table 8.1
Stages of Implementation

	Present Condition	Awareness Stage	Experimentation Stage	Adoption Stage	Desired Condition
	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
The School Philosophy	Either no formal statement or a written document on file in the school office.	School staff share beliefs, look for consensus, restate philosophy and objectives in terms of expected behavior.	Staff begins use of goals as guide to evaluating school practices. Begin to involve students and community in planning.	Philosophy and goals used to shape the program. Formal mechanism established to monitor program and decision making.	Philosophy a living document. Guides daily decisions. The program a tool for achieving desired educational ends.
The Learning Environment					
Use of the Building	Only uniform instructional spaces. Little use of the building spaces for educational purposes.	Some deviation from traditional space utilization (classroom learning center). Possibly a complete demonstration class for bright ideas.	Limited building conversion (knock out walls). Begin to identify unused spaces. Planning for large learning spaces.	Development of a comprehensive plan for use of grounds and buildings. Total remodeling of spaces.	Tailor-made learning environment--all spaces used to educate. Building facilitates the learning intention.
Use of Materials	Classrooms are dominated by a grade-level text. Library with a limited offering. Used as a study hall for large groups.	Use of multi-level tests within classroom. Materials selected after an analysis of student achievement levels. Supplemental resources made available to students.	Diverse materials developed for the students. Resource centers established. Cross-discipline selection of materials. More multi-media used. Some independent study.	Materials purchasing policies realigned. Common learning areas established as resource centers. More self-directed study built in.	Diversified materials. Something for each student. Integrated subject materials. Portable curriculum units (on carts). Heavy multi-media. Active learning centers.

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Table 8.1 continued

	Present Condition	Awareness Stage	Experimentation Stage	Adoption Stage	Desired Condition
	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Use of Community	Little or no access to school. Information about programs scanty. Trust low.	Some school program ties to community. Token access via PTA and media. School perceived as island in neighborhood.	Preliminary users of community as learning environment. Identification of nearby resources. Use of building for community functions.	Regular interchange between school and community. Systematic communication. A network of services and resources established.	School programs outwardly oriented. Community seen as a teaching resource. Systematic ties with services and resources around school.
Instructional Organization					
Staffing Patterns	Building teachers isolated in self-contained classrooms. Little or no lateral communication or planning present.	Limited sharing of resources. Some division of labor and small-scale cooperation in teaching. Informal communication about student progress.	Regular cooperative planning sessions. Some curricular integration via themes. Students rotate through subject areas. Problems of cooperation identified.	Interdepartmental organization. Use of common planning time. Administrative support such as in scheduling. Use of philosophy as curricular decision-making criteria.	Teaching staff a "team" working toward common ends. Staff patterns reflect instructional intentions. Administration in support of curricular design. Coursework integrated for students.
Teaching Strategy	Some variety but lecture and teacher dominated Q-A session the norm. Homework used to promote day-to-day continuity.	Observation of other teaching models. Skill development via workshops. An identification of staff strengths and weaknesses. Some new patterns.	Building level experiments by willing staff members. "Modeling" of ideas. On-site consultant help made available for skill development.	School day divided according to the teaching strategy employed. Faculty evaluation of the effectiveness of new ways after a trial period.	Great variety of methods used in teaching, uses of media, dealing with students. The curricular plans determine strategy.

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Table 8.1 continued

	Present Condition	Awareness Stage	Experimentation Stage	Adoption Stage	Desired Condition
	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Staff Development	Staff development is global, rarely used to attack local needs and problems. Occurs as needed.	Staff identifies inservice needs and priorities. Philosophy assists in this process. Local staff skills and strengths are recognized.	Staff development realigned to serve needs of teachers. Opportunities for personal growth are made available.	Formal procedures for directing staff development to needs established. Staff development seen as problem-solving mechanism.	Staff development an on-going process using available resources. An attempt to close theory-practice gaps.
Administrative Conditions					
Organization of Student	Uniform patterns. One teacher, 30 students in six rows of five in each period of each school day.	Understanding that organization of students should match curricular inventions. Some initial variation of group sizes in classroom.	Limited organization to facilitate the grouping of the students. Begin use of aides and parents to increase organizational flexibility.	Full administrative support for a reorganization of students. Building restructed where necessary. An increase in planning for effectiveness.	Group sizes vary according to the activity planned. Full support given to eliminate any problem areas.
Report of Student Progress	"Progress" is defined narrowly. Letter grades or simple numerals represent student learning in the subject areas.	Recognition of broader growth goals for students. Use of philosophy to evaluate the existing practices.	Experimentation with supplemental reporting procedures. Involvement of student and parents in the process.	Development of a diverse and comprehensive reporting procedure for student progress.	Descriptive medium used to monitor individual student progress. Broadly focused evaluation. Team of teacher, student, and parents involved.

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Table 8.1 continued

	Present Condition	Awareness Stage	Experimentation Stage	Adoption Stage	Desired Condition
	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Rules and Regulations	High degree of regimentation. Many rules, most inherited over the years. The emphasis on the enforcement and on control.	Staff and students identify essential rules. Regulations matched against the school philosophy.	Rules and regulations streamlined. Used as a teaching device about life outside of school. Increased student self-control.	Greater use of student and staff input into the regulation of the school environment. Rewards built-in for desirable performance.	Moving toward minimal regulation and an increased student self-control. Regulations a positive teaching device.
Discipline	Reactive pattern ranging from verbal admonishment to paddling and expulsion. Reoccurring offenders.	Staff analysis of school policies. Shift of emphasis to causes of the problems. Some brainstorming of possible solutions.	Establishment of a hierarchy of discipline activity. Begin implementing preventive strategies.	Design of curriculum programs to deter discipline problems. High intensity program for regular offenders.	Program of the school eliminates most sources of discipline problems. The procedure for residual problems clear to all.
Roles of Participants					
Student Roles	Passive recipient of knowledge. Instruction is geared to average student. Reactive communication with the teacher.	Investigation of new student roles by teacher. Limited hierarchy of trust established in the classroom. Needs and interests of student investigated.	Groundrules for increased student independence set. Student involvement in planning. Role of student connected to philosophy of the school.	Periodic staff review of student roles. Roles linked to school-wide rules and regulations. Philosophy guides role possibilities.	Students involved in planning and conducting the program. Increased independence and responsibility. Use of "contracts" to maintain new understandings.

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Table 8.1 continued

	Present Condition	Awareness Stage	Experimentation Stage	Adoption Stage	Desired Condition
	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Teacher Roles	Defined by the subjects taught. Perceived as the source of all knowledge. Other roles peripheral.	Perceiving roles suggested by the philosophy. Roles accepted at verbal level. Limited experimentation with new roles.	Investigation of new roles--trying on new relationship. Goal-setting for individual teacher. Skill development through in-service.	Administrative reorganization for role support. A sharpened planning and action skills needed to serve the student according to the philosophy.	Teacher role is defined by student needs. Teacher the organizer of the learning activities. Teacher talents used more effectively.
Principal Roles	Solely responsible for school operation. The "boss". Enforcer of all rules. The linkage to all outside information and resources.	Awareness of role limitations. An awareness of real leadership potential. A setting of role priorities.	Limited sharing of decision-making in area of curriculum. Limited joint planning with the faculty. Review of existing policy according to the philosophy.	Role perception changes to manager of resources. Emphasis on development (active) rather than on order (static). Increase in curriculum leadership functions.	An instructional leader. Administrative acts support the curriculum program. Philosophy guiding decision-making. Built-in monitoring system for evaluating building level program.

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Implementing a middle years program, then, necessarily involves innovation. And it is very important to avoid the mistake committed by innovative programs and projects which have been tried in the past. It is particularly important to recognize the fact that implementation is a process which involves careful planning, and that it is not something which can be left to take care of itself.

FIRST STEPS

The first step in introducing a middle years program must include: first, finding out what current practices are, and finding out how people perceive them, especially how teachers, parents and the students themselves perceive them; and, second, beginning whatever degree of consciousness raising is necessary and appropriate. The operating principle is simple and straightforward: a middle years program can be successfully introduced and sustained only if the people involved are convinced of the need for it. In other words, a need must be demonstrated. If this is not done, middle years will be quickly dismissed as just another educational bandwagon and it will receive the same cold shoulder as many of its predecessors did.

Implementation, then, must begin with an inquiry into current practices with a view to identifying and correcting whatever problems are found. The inquiry must also acknowledge people's perceptions of current practices. It is important to remember that it is not at all unusual for an outside observer to identify all kinds of "problems" of which those involved on the inside may be totally unaware or which they may at least explain very differently. Take, for example, a case where large numbers of students fail their schoolwork and are compelled to repeat a grade. An outside observer may question the appropriateness and effectiveness of the teaching methods and the curriculum, while the teachers may blame the students and their home backgrounds for lack of motivation and effort. Further, it must be borne in mind that it is often difficult to assess any given state of affairs adequately if one is not at the same time aware of alternatives. It might be, for example, that traditional junior high approaches would be seen as adequate, or at least inevitable, unless one knew of alternatives to them. The early stages of implementing a middle years program, then, should consist of a combination of investigation and introduction.

There are many ways of investigating a current situation, some including more or less objective measures, some including more subjective measures. Some objective measures are:

- the number of students held back to repeat a grade;
- the number of students given failing grades by their teachers;
- teachers' assessments of students' performances, as judged, for example, by grades awarded and by comments written on report cards;
- the number of disciplinary problems, as judged by detentions, suspensions, number of students referred to the office, for example;
- absence and truancy statistics;
- extent of vandalism of school buildings and fixtures;
- extent of student participation in school activities.

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Such measures as these are objective in the sense that they can at least be quantified, although there is an obvious element of subjectivity in their composition. It is, for example, an objective fact that Betty got 55 percent as her industrial arts mark, but it is to some extent a subjective judgement of her teacher that she got 55 percent and not 50 or 60. Nonetheless, such measures can serve as useful indicators of problems, especially of school-wide problems which may not always be visible to classroom teachers whose first concern must be with their particular students. And, if nothing else, such measures can serve as useful starting points for discussion: why is a certain percentage of students skipping school, or being referred to the office, or whatever? Is it a curriculum problem, a question of inappropriate teaching strategies, of teacher assumptions, or cultural biases, of wider socio-economic problems in the community? And what can the school do about it?

These objective measures can usefully be supplemented with subjective measures, such as questionnaires that can be administered to both students and parents asking for their perceptions of all aspects of the school and inviting both positive and negative comments. Other subjective measures such as conversations with teachers, students and parents, observations of school practices and operation of the playground, corridors, and classrooms, and requests to teachers about what is needed to improve their jobs, can be implemented as well.

Most of these measures, both objective and subjective, can be combined with the process of needs assessment. The primary purpose of a needs assessment is to reveal discrepancies between what conditions actually exist and what conditions people would like to see exist. A needs assessment is usually conducted through a steering committee or task force and it is important that administrators, teachers and parents be included. The steering committee should deal with three broad areas:

Organization of the school
- grades and reporting
- timetabling
- student grouping
- staffing and staff development
- use of space

Curriculum
- core curriculum
- optional subjects
- guidance
- co-curricular activities
- resources
- student evaluation

School and community
- parent involvement
- community resources
- community use of school
- parent-teacher co-operation

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Of course, needs assessments can be done in many ways. Whatever method is used, however, needs assessments are useful in providing a periodic check on the appropriateness and effectiveness of programs and policies, and in providing a data base from which change can be initiated.

This gathering of information must simultaneously be accompanied by attempts to make teachers and parents aware of alternatives to existing practices. If the goal is to introduce a middle years program, then those who will be involved in operating it must be introduced to the ideas, assumptions and philosophies at a very early stage. This can be accomplished by such methods as suggesting readings, using resource people, arranging visits to other schools, having those involved attend conferences, and arranging staff discussion groups. These methods should include teachers and parents. The process should not be one in which people are just introduced to ideas with a speech or a videotape, but should allow for thorough questioning. The successful implementation of a middle years program demands that those operating it should accept the philosophical assumptions and they should have thought through the implications of the assumptions. This means that they should have begun to examine middle years philosophy at the earliest possible stage in the implementation process.

A STATEMENT OF PHILOSOPHY

As noted above, it is important especially in the middle years that programs be based upon explicit statements of philosophy and that these statements are part of the working repertoire of middle years teachers. As stated in chapter 1, middle years education is more an approach than it is a particular set of institutions. Therefore, it is necessary that the approach be clearly described and then accepted by teachers. As W. M. Alexander and P. S. George put it, "A specific statement of philosophy and goals of a school is critical in its original and continued planning."[9]

The contents of such a document must be decided by the people involved. There is nothing to be gained by simply adopting a statement put together eleswhere. If the document is to be an inspiration and a guide to action, it must be seen by teachers as belonging to them and initiated by them -- they must "take ownership" of it. Thus it is crucial that a school staff, usually by delegating the task in the first instance to a working committee, come up with its own statement of philosophy. In this process, of course, it will be desirable to look at other such statements -- the more the better -- and to consult the available literature on middle years education, for there is no point in "re-inventing the wheel." In the final instance, however, the statement must be unique to the particular school. Most such statements share a set of common themes, but the expression of the themes differs from one case to another. In general, they contain at least a statement of the following:

- the nature and needs of middle years students;
- the role of education in the middle years;
- appropriate teaching and learning strategies;

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. curriculum for the middle years;
. school-community links.

One useful guideline, suggested by J. Wiles, comprises a checklist of fourteen areas:[10]

Moving From	Moving Toward
1 Philosophy A written document on file in the school office, defining the school in terms of knowledge areas and administrative concerns.	An active, working philosophy which is known by all teachers and which serves as the basis of day-to-day decision making. Defines the school in terms of expected learner growth.
2 School plant Using only standard classroom space for instructional purposes.	Encompassing varied learning environments, using all available building spaces for instructional purposes (school yard, corridors).
3 Staffing patterns Isolated teachers in self-contained classes.	Teachers grouped in co-operative arrangements, dealing with large numbers of learners collectively. Planning time and home-base teaching function built in organizationally.
4 Instructional materials Classrooms dominated by a basic grade-level text. Libraries usually study halls for large class groups.	Diversified learning materials within any given classroom setting; "something for everybody." Multiple texts, supplemental software, integrated and cross-subject materials. Heavy use of multi-media learning resource centers for independent exploration.
5 Organization of students Basic pattern of one teacher and thirty students in standardized room spaces. Students in same sized groups all day.	Greater variability in sizes of learning groups, ranging from individualized study to large-group (120 students) instruction. Grouped according to the objectives of the instruction.
6 Teaching strategies Variety of approaches found but most classes dominated by lecture, single text, question-answer format.	Greater variety of patterns of teacher-pupil interchange. Teaming when advantageous, greater use of media, possible peer teaching, counselling, more hands-on experiences.

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Moving From	Moving Towards
7 Role of the teachers Defined in terms of subject(s) taught. Teacher perceived as source of knowledge and responsible for order.	Greater concern with students. A planned teacher-counsellor role. More group work (projects, issues). Teacher role an organizer, facilitator of learning experiences. Teacher monitoring "contracts" with students. Shared responsibility for order.
8 Role of student Passive recipient of knowledge. Most instruction paced to group. A reactive posture.	Greater input and chance for expression. Involved in planning. Goal to become self-directed. Emphasis on self-conduct and "success." Use of contracts for student goal setting.
9 Role of parents Limited access to the schools. Few parents involved at meaningful level. Involvement is only administrative concerns.	Greater involvement of all parents in school activities. Opportunities for more direct involvement in instructional roles in classroom and curriculum planning. Greater flow of information to parents about school objectives and program.
10 Role of community Limited interface with schools. Some strong foundational ties with social services in the city.	School becoming more outwardly oriented; seeing the community as a learning environment and source of instructional resources. Systematizing the connections with social services in the community.
11 School rules and regulations High degree of regimentation through rules and regulation. Little student input into process. High degree of student dependence on adults for direction.	Greater involvement of students in the design of regulatory policies. Identifying the really essential rules . . . aiming toward minimum acceptable level of control. Goal to foster increased student dependence and self-control.
12 Discipline Reactive pattern of discipline, ranging from admonishment and parent conferences to paddling and expulsion.	Designing an active program to deter potential disciplinary problems. Greater involvement of pupils in process. Insured degrees or successes for all students, seeking to curtail frustration and boredom.

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Moving From	Moving Toward
13 Reporting of student progress Letter grades assigned, concern with only narrowly defined academic progress.	Striving for varied student evaluation using a more descriptive medium (conferences, student folders, etc.). Focused on all dimensions of student growth. Designed to attack building level problems identified by teachers and students. Development of a monitoring process to measure achievement of predetermined goals.

Statements of school philosophy should be written in clear, concise language and should be intelligible to all. They should avoid the special terminology of much educational debate and the woolly phrases that characterize some educational writing. For example, a statement such as "the ultimate goal of the _____ middle school is in human relationships" is not only ungrammatical, but it has no particular meaning. Any statement of school philosophy should be written so that its meaning is clear, especially to parents, many of whom are unfamiliar with the specialized language of education.

THE TIMETABLE

Enough has been said in earlier chapters of this sourcebook about questions of curriculum, teaching and learning, all of which are central to any educational endeavour. The success or failure of these aspects, however, often depends upon other factors, one of which is the nature of the school timetable. A case has been made in earlier chapters for the ues of interdisciplinary teams, of adjusting instruction to students, of being sensitive to students' needs and of using a range of teaching strategies. All of these can be made or marred by the timetable.

It is generally agreed that the most appropriate form of timetable for the middle years is one which takes the middle ground between using the largely undifferentiated, single block of time appropriate for the early grades and the more prescribed time divisions appropriate for high schools. The essential point here is that "the organization of time attempt[s] to facilitate the basic organizational framework of the school."[11] This is best accomplished by using some variation of block or modular timetabling as opposed to using the more traditional approaches.

Traditionally, the standard junior high school timetable has been based upon departmentalization, a scheme in which the day is divided into periods which allow equal time for each subject.[12] The obvious advantage of this kind of timetable is that it is relatively easy to locate students and staff. One disadvantage is in its assumption that students will learn the same material at more or less similar rates. Such a timetable looks like this:

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Time	Monday	Tuesday	Wednesday	Thursday	Friday
8:30	A	A	A	A	A
9:30	B	B	B	B	B
10:30	C	C	C	C	C
11:30	Lunch	Lunch	Lunch	Lunch	Lunch
12:30	D	D	D	D	D
1:30	E	E	E	E	E
2:30	F	F	F	F	F

A block timetable, on the other hand, allows for more flexibility and decision making by teachers, who can decide whether to use the whole block for one particular subject or to divide it according to criteria of their own choosing. It also allows for the deployment of a wider range of teaching strategies with less disruption, so that field trips, films and visiting speakers, for example, can be more easily accommodated. Such a timetable might look like this:

Period	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
1 8:50- 9:43	Non-core Options	Core Subjects	Core Subjects	Non-core Options	Core Subjects	Core Subjects
2 9:43- 10:36	Non-core Options	Core Subjects	Core Subjects	Non-core Options	Core Subjects	Core Subjects
3 10:36- 11:30	Core Subjects	Core Subjects	Non-core Options	Core Subjects	Core Subjects	Non-core Options
4	Team Meetings Core Meetings Lunch Break					
5 12:56- 1:43	Core Subjects	Core Subjects	Non-core Options	Core Subjects	Core Subjects	Non-core Options
6 1:43- 2:36	Core Subjects	Non-core Options	Core Subjects	Core Subjects	Non-core Options	Core Subjects
7 2:36- 3:30	Core Subjects	Non-core Options	Core Subjects	Core Subjects	Non-core Options	Core Subjects

An example of Block Timetabling (courtesy of Mr. D. Betting, Valley Gardens School, River East School Division).

Some schools use a modular timetable system, which is a block timetable approach taken further. Here the length of the modules is usually not shorter than ten minutes or longer than twenty, and the day is divided accordingly. Each interdisciplinary teaching team, or each specialist teacher, determines the number of modules needed to teach their courses effectively and a timetable is worked out accordingly.

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The key points about middle years timetabling methods are that: it should allow teachers to use their own judgement as to how much time to allot to a particular subject with a particular class on a particular day; and, it should permit the use of a wide range of teaching strategies, for example, large group instruction, small group work, films and-visits. These two principles can be implemented in a wide variety of ways, many of which can be found illustrated and explained in chapter 7 of The Exemplary Middle Years School by W. M. Alexander and P. S. George.

THE USE OF SPACE

Experience has shown that a good middle years program can be established in virtually any kind of building, from brand new custom-built schools to conversions or adaptations of older buildings. In Manitoba, for example, successful middle years programs have been successfully established in especially designed buildings, in incorporation of open-area and/or pod facilities, in buildings that were designed as traditional junior high schools and in large seven to twelve schools where the middle school has been allotted its own particular space and operates as a school within a school.

The fundamental point about space for a middle years school is that the building and the configurations of space it permits must not be allowed to dictate or shape the program; the requirements of the program must determine

A well-equipped library and resource centre is crucial.

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the use of the building. As with timetabling, the key word is flexibility. To the greatest extent possible the building should accommodate both large-group and small-group instruction; it should allow teachers, especially where interdisciplinary teams are used, to organize their students into appropriately sized groups. Space will be needed, for example, for teachers to work with small groups, for students to work on independent study and for bringing together larger groups of students. At the same time, adequate space will be needed for such special subjects as art, music, science, physical education, industrial arts and home economics. Above all, if a middle years program is to work effectively, a well-equipped library and resource centre is crucial. The types of curricular adaptations and teaching strategies appropriate to the middle years, with the accompanying stress on individualization, on expanding students' horizons, on appealing and enriching students' interests, on encouraging independence and autonomy, demand that adequate resources be at the disposal of students and teachers.

For most of the school day, of course, students spend their time in particular classrooms rather than in the school at large. As with timetabling, flexibilitly is an important keyword in organizing classroom space. Much can be accomplished by varying seating arrangements, by having particular parts of the room designated for particular purposes, by using shelves and dividers, by mounting notices and displays. It should be clear from one glance at a classroom that it is a place where many different activities take place. It should also be clear that far more than simply "full-frontal teaching," in which a teacher stands at the front of the room and dictates to rows of desk-bound listeners, occurs.

Space should not only be used flexibly, but it should also be made as attractive as possible. There is no particular reason for schools to favour the neutral institutional colours that are common, though, admittedly, this is less common now than it was in the past. Some adventurous teachers have rectified this problem by encouraging their students to decorate the walls in rooms and corridors. Regrettably, one still finds classrooms with their walls bare and unadorned, where the whole atmosphere is clinical and cold. Much can be done with displays of posters, maps, pictures, samples of student work and so forth.

PROFESSIONAL DEVELOPMENT

Middle years educators spend much of their time, quite rightly, thinking about their students and about ways of making their education more appropriate and more effective. This concern for children, however, should not overshadow a concern for teachers. Children will not get a particularly good education from teachers who are harassed or indifferent. For this reason, a sustained and carefully planned program of professional development for teachers is essential to the success of any middle years program.

A good professional development program should do three things: it should help teachers maintain and improve their professionalism, it should attempt to overcome the problem of the lack of specialized training for middle years

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teachers; and, it should help teachers keep abreast of the flow of thinking and writing about middle years education.

The demands and pressures of teaching are such that the job can easily degenerate into the unthinking and largely unvarying application of set routines. In his book entitled Crisis in the Classroom, Charles Silberman deplored what he called the "mindlessness" of much that he saw in classrooms; however, he did not connect this to teachers' working conditions or to the organizational imperatives of schools.[13] Like Silberman, many commentators and theorists have urged the importance of asking (and answering) the question, "why?," of all that we do as teachers. Robin Barrow, for example, calls the process "thinking things through."[14] Similarly, E. Hoyle has distinguished between what he terms "restricted" and "extended" professionals.[15] Restricted professionals are competent classroom practitioners but do not concern themselves with those things that happen outside their classrooms. Extended professionals extend themselves beyond their more or less immediate classroom context to consider subjects which some would call more theoretical, philosophical or academic. It is notable that, for the most part, teachers see themselves as practitioners and are suspicious and sceptical of theory. L. Stenhouse has called for the acceptance of the concept of "teacher-as-researcher" in which teachers themselves engage in research, and thus generate theory, in their own classrooms.[16] This opens up a collaborative dimension of teaching, in which teachers work together in examining and reflecting upon their own teaching. It is a way of overcoming what Lortie and others have identified as the "solitariness" of teaching, especially in forms of school organization which by and large lock teachers into exchange with students for most of their working day, and where contact with adult colleagues is restricted.[17]

These, of course, are issues which affect teachers at all levels; they are not a unique concern of the middle years. However, some would argue that teaching young adolescents is more difficult than is teaching either younger or older students and that the middle years philosophy does place unusually heavy demands upon teachers. Whether this is so or not, a carefully planned and sustained professional development program does provide a useful way of bringing teachers together to examine and discuss old problems and new concepts. It is a way of generating a climate of "extended" professionalism, to use Hoyle's term, and of overcoming mindlessness.

What makes the above comments about professional development especially appropriate for the middle years is that most teachers working in a middle years program have had no specialized training in middle years teaching. Most teachers of middle years youngsters in Manitoba were trained simply as secondary teachers, usually with a bias to senior high school, and with a strong commitment to subject specialization. (Some middle years educators argue, however, that an elementary-school training is more useful at least for teaching the first stages of a middle years program.) In any event, it is true that many teachers now involved in or being asked to get involved in middle years education have not received any specialized teacher training in the area. Some jurisdictions in the United States have begun special middle years training, but this will likely affect only a few Manitoba teachers.

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For eminently practical reasons, then, it makes sense to provide a program of in-service professional development if teachers are to work successfully in a middle years environment. Common sense, experience and research indicate that one-shot training sessions, no matter how long and how intensive, are never as effective as continuing, sustained programs. These continuing, sustained programs are the programs being advocated here.

Long-term training programs are even more necessary for middle years education, because it is still a new and developing field and it is therefore open to the offering of new theories, new concepts and new methods of operating, all of which can allow (or should allow) challenge and discussion. There is a good deal for us to learn about middle years education and knowledge about it is constantly increasing. Thus, a sustained program of professional development offers the most obvious and the most effective way of keeping teachers up to date with new developments. The process should not be seen as simply a passive receipt of information from an expert but should be seen as an opportunity of engaging in critical discussion. Are middle years youngsters, in fact, as distinctive and peculiar as they are sometimes thought to be? Are Epstein's theory of brain growth and the educational implications he and Toepfer derive from it totally credible? What are the objections to Piagetian theory? These and many other questions are worth asking, for middle years education is as prone as anything else to simplistic nostrums and quick-fix solutions.

However, as important as a continuing professional development program is, it is not something that can simply be prescribed by administrations. If teachers are not committed to a professional development program, if they do not feel a sense of belonging to it, they will regard it with suspicion and resentment. Professional development is a matter for teachers themselves to organize. The mechanism of organizing the program is not important; the important point is that teachers must see the program as theirs and they must make the program deal with problems and topics of concern to them.

To say this is not to advocate a policy of total teacher power. There should be an important role for school principals and other administrators. It is true that principals are not just managers of the school plant -- or should not be -- but are also educational leaders. A well-informed principal will play an invaluable role in introducing teachers to new concepts, to alternate ways of looking at old problems, to questions not previously asked or answered. Professional development is something in which both teachers and administrators (if that unfortunate division has to be made at all) should have an active voice.

A professional development plan should be worked out for the whole school year; it should be planned and discussed in advance; the topics dealt with should form some kind of sequence. The forms a program could take are fairly obvious and straightforward: visits to other schools, attendance at conferences, inviting speakers and resource people, organizing discussion of readings. The importance of visits and conferences is worth special mention. Traditionally, teachers have had little opportunity to engage in the

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kinds of activities taken for granted by other professionals, although this has begun to change in recent years. It makes abundant sense to extend to teachers whenever possible the chance to visit other schools and to attend conferences.

P. Pumerantz and G. Galano offer a useful set of guidelines for professional development programs:

- Inservice training programs need to be continuous if they are to be effective.
- The programs themselves must be models of enlightened instructional and administrative practices.
- They must not be haphazard approaches but meaningful, well-planned programs with clearly defined ends put in task-oriented terms.
- They must allow the staff members who will be involved in change to see the purpose of the idea being promoted. The staff must have the view of the overall operation in which they will be a part.
- The personnel involved must be able to discover for themselves the advantages of the new idea rather than have it handed to them.
- The inservice program must be learning-oriented rather than listening-oriented.[18]

SCHOOL GOVERNANCE AND DECISION MAKING

Much of this chapter has dealt in passing with the importance of involving teachers in decision making, be it in implementation, in timetabling, in using space or in professional development. It is, after all, only fair to extend to teachers what middle years education offers to students: the opportunity, encouragement and training to make decisions for oneself, to exercise personal autonomy in a socially responsible way. It is not only a matter of fairness, however, but also of effectiveness. Of course, if a middle years program (or any other) is to work successfully, its teachers must feel a sense of commitment to it. Indeed, recent research on what makes some schools particularly effective compared to others points to the crucial importance of school climate and morale. The research also shows that positive climate and morale are the result of a compound of clear and accepted school policies consistently applied. Strong administrative leadership and high teacher involvement and commitment are also crucial to a positive climate and morale.[19]

A positive climate and morale also derives from teachers' knowing that they have an important voice in the making of decisions concerning the school and from a relationship between teachers and administrators which is based upon collegiality and co-operation. Institutionally this can take a variety of forms, of which the two most common are the school council and a committee system. The school council comprises a group of teachers who advise the principal and vice-principal on all matters concerning the school. It might consist of team leaders or department heads and particular specialist teachers, or it might be elected at large. Whatever the format, its task is to provide a two-way connection between administrators and teachers. The weak-

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ness of such a system is that it can, at best, comprise only a handful of teachers, leaving the rest to some extent on the outside. It embodies both the strengths and the weaknesses of any representative system. A system of committees largely avoids this problem, making it possible for many more teachers to become involved with general school affairs. Committees would be elected by and from the staff to deal with such topics as: curriculum, extra-curricular activities, budget, school-community links, evaluation and discipline. Of course, particular committees and sub-committees can always be struck on an ad hoc basis. It should be noted also that these committees report not to the principal but to the staff at large. The principal and/or vice-principal will always retain an ex-officio membership, but the discussion and decision making will belong to the staff at large.

SCHOOL-COMMUNITY LINKS

The importance of strong, two-way connections between schools and homes is now generally recognized. Education usually benefits when teachers and parents understand each others' priorities and goals and when they work co-operatively. This is a particularly important consideration in cases where teachers and parents come from different cultural backgrounds and where students may not do as well as they could do in school because of cultural differences. It is also important in the cases of youngsters who have had trouble with school from the beginning, for a range of cultural, social and economic reasons, and as a result may have accumulated a residue of suspicion and mistrust of school and community. It is not only in these extreme cases, however, that good school-community relationships are necessary; indeed, they are invaluable in all situations.

But, good school-community relationships are particularly important in middle years education. The particular nature of middle years children has already been described, as have their needs and characteristics, and the goals and philosophy of middle years education. Suffice it to say here that the middle years do represent a distinctive stage of development and they do see the emergence of problems which can be especially troublesome if not handled properly. The years of early adolescence are not always easy, either for children or for those adults who have to deal with them. It makes a good deal of sense, therefore, for teachers and parents to work together, to exchange information, to discuss developments, to work out mutually acceptable strategies. Many of the problems with which teachers have to deal in the middle years arise from or spill over into students' home lives. Similarly, many of the problems with which parents have to deal arise from or spill over into students' school lives. And, after all, middle years education is concerned not only with youngsters' academic and intellectual development, but also with their personal and social development. This being the case, teachers and parents can hardly avoid working together.[20]

To refer to the implementation concerns discussed earlier in this chapter, if a middle years program is first to be implemented and then to be maintained successfully, it will need community input and support. Parents for the most part will be accustomed to traditional junior high school ways of

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working and will want to have new directions explained to them; it would be invaluable to provide them with opportunities for input and discussion at this stage. The different forms of school-parent contact are listed below. The list is arranged on a sliding scale in order of the degree of influence parents have upon school policies and decisions, beginning with basic information exchanges and ending with a high degree of parental involvement in school policy making and operation:

1 The school solicits basic information from the home usually by using questionnaires, e.g., to obtain medical information, name of family physician, parents' place of work;

2 The school distributes information to parents by way of letters from the principal, regular newsletters;

3 Special events are organized which parents are invited to attend, e.g., musicals, concerts, science fairs;

4 Parent-teacher visits are scheduled, usually to discuss report cards or to celebrate special events, e.g., science fairs;

5 Teachers contact parents individually by letter, telephone, or in person to deal with particular problems or simply to provide information about courses and expectations;

6 The schools make use of community resources, e.g., through volunteers, through resource people, through sending students into the community to pursue curriculum projects;

7 A home-and-school association is actively encouraged and moves beyond simple fund-raising and other support services;

8 Parents are actively involved in school governance, e.g., through membership on staff committees, or through the creation of school councils.

For most parents, however, the chief contact with the school will occur because of their particular children. It will be the quality of the parents' encounters with teachers and/or administrators that will set the tone for much of the more general linkage between school and community. Through the advisor-advisee system, which is an integral part of any middle years program worth the name, parents will often be in contact with teachers directly, not, as used to be so often the case, only the school administration. It might be useful to provide some suggestions for teachers in organizing parent-teacher meetings:

. Meet the parents in an informal way. Do not sit behind the teacher's desk while the parents perch behind students' tables. A conference room is ideal. If not, provide chairs so that everyone meets on an equal footing. Providing coffee or tea might be a useful ice-breaker.

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- Have your paperwork organized (mark sheets, attendance records, samples of student work).
- Avoid technical language and jargon. Use simple, precise English that can be readily understood.
- Get the parents' point of view. Do not rush in with your own opinions and interpretations. See the situation through their eyes. Always remember they will feel differently about their children, and see different aspects of their behaviour and personality, from what you know as a teacher.
- Do not compare one child with another. Make it clear that you are concerned with a student as an individual in his or her own right.
- Do not become provocative or confrontational even under duress. Be firm when necessary but keep calm.

It is unfortunately too often the case that parents sit mute and let teachers dictate the terms of the meeting, a situation which is of little use to either side. Teachers can do parents a great service by giving them some guidance as to the kinds of questions they might ask. Here, for example, is one set of guidelines, provided by L. Hart and J. Bellanca:[21]

Information on how the child learns at school:
- Does my child know how to use wisely that time which the teacher does not pre-plan?
- Does my child learn better in large groups, in small groups or independently?
- Does my child apply what he/she learned to new situations beyond the immediate lesson?
- What materials does my child use most regularly to help with his/her learning?
- What problem solving skills is my child able to use?

Information on how to help a child do better in school:
- How can we help the child with problems resulting from physical and emotional growth?
- Are there physical/emotional problems that are interfering with my child's learning?
- How can we help our child establish better social relationships with other children?
- How can we help our child with academic problems?
- How can we help our child take more responsibility for his/her learning?

Information on the child's self direction:
- Is my child able to identify his/her learning needs?
- Can my child set realistic long and short range goals?
- Can my child pay attention in class and follow directions?
- Does my child select and use a variety of learning resources and materials?
- Does my child begin tasks promptly and complete on time?
- Can my child assess the quality of his/her work?
- Can my child act independently of peer pressure?

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Information on the child's social adjustment with his/her parents:
. Does my child offer to help others?
. Does my child respect the property of others?
. Does my child live up to commitments made to you or to his/her peers?
. What is the attitude of other children to my child?
. Does my child share responsibility?
. Does my child share and play well with the other children?

Information on the child's creative work:
. Does my child express himself/herself in a variety of media?
. What specifically is my child doing to develop creative talents?
. What specific talents does he/she seem to have?

Information on the school's goals and operation:
. What are the long- and short-range goals of the school?
. How do you hope to accomplish these goals?
. How is the school trying to meet these goals?

It is important for teachers to find out from parents what kind of information they want. Asking parents to rank a set of categories like the following would be helpful:

. Information on academic progress.
. Information on how my child learns at school.
. Information on how we can help the student do better.
. Information on how the child develops self direction.
. Information on the child's social adjustment.
. Information on the child's creative work.
. Information on the school's goals.

Finally, it should be noted that it can often be well worthwhile for teachers (or interdisciplinary teams) to send to parents at the beginning of the year, or term or semester as the case may be, a brief, informal description of what students will be doing in their classes. Such a letter not only gives parents some information about what their children will be doing, but also indicates to parents that the school is interested in having them involved, in keeping them informed, and not simply contacting them in times of crisis or complaint.

In summary, middle years programs must provide for strong links with the parents of students and it is important that these links provide for communication in both directions, not only from school to parents but also from parents to schools. These links should go beyond the routine dissemination and collection of information through the school administration. They should exist at the level of the teachers who actually teach the students. Parents have a right to know what teachers expect from and are trying to accomplish with their children. In any event, a middle years program should have a strong community base. If the learning of middle years youngsters is to be as varied, as rich and as fruitful as it should be, it must extend beyond the classroom. The community should be seen and used as a curriculum

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resource, be it for literature, social studies, science or any other subject. As has been described in earlier chapters, middle years students learn in concrete, experiential ways and can only benefit from the kinds of hands-on, person-to-person approaches that are involved in using the community and its people as a basis for learning. Thus, middle years educators should maintain contact not only with the parents of their students (altough this is of primary importance) but they should also maintain contact with the community at large, for example, with local police, social services, churches, labour unions and businesses.

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NOTES

CHAPTER 1

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2. R. J. McCarthy, The Ungraded Middle School (West Nyack, N. Y.: Parker Publishing, 1972), p. 18.
3. W. A. L. Blyth and R. Derricott, The Social Significance of Middle Schools (London: Batsford, 1977), pp. 5ff.
4. Superintendent Daniel McIntyre reported to The Winnipeg School Board as follows: "During the past three or four years much thought had been given by those engaged in educational work in the United States to the reorganization of education for children in the senior grades of the elementary school so as to adapt it both in material and method to their stage of development, their varying interests and aptitudes and the new demands made by society upon the school. This adaptation had been attempted in many communities by making the elementary school period end with the sixth year and grouping the two remaining grades with the first year of the present secondary school, constituting a new division known as the intermediate section or more commonly the junior high school, and my visit was made to several points where the experiment had been carried on for a sufficient time to give opportunity for judging how far it met the expectations and claims of its advocates. My observations were made over a somewhat wide field, and included actual work in a large number of classes as well as discussions with teachers and supervising officers.

   The work of instruction in the junior high school is organized on the departmental plan so that each teacher is required to teach but one subject or a small group of subjects to several classes, instead of having to present the work of all subjects covered by a single class as is the practice in the graded school. In this way the pupil pursues the study of a subject under direction of the same teacher for three years. Teachers are specially chosen for their knowledge of the subjects to be assigned to them, their interest in these subjects, and their power of so presenting them as to stimulate the interest of the young student.

   The testimony of teachers is practically unanimous that the pupils under this plan of organization are more interested and come to their work with greater freshness than children of corresponding grades under the older form of classification, and that they themselves, with a nar-

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rower field, can make more thorough preparation and thus present their subject better than when they had to cover the wider field. The fact, too, that under this plan the classroom assigned to a special subject can be abundantly equipped with material and appliances, converts the classroom into a laboratory where each pupil works at the problem under consideration and makes his individual contribution to the general result, and thus changes the whole character of the instruction and vitalizes the teaching. Attendance records show a larger proportion of pupils completing grade 9 than under the older organization. It is pointed out, too, that provision can be made for a more flexible course of study which can be adapted to the needs and abilities of different groups of pupils." Annual Report of The Winnipeg School Board (1918), pp. 45-46.

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14. Cited in R. Callahan, Education and the Cult of Efficiency (Chicago: University of Chicago Press, 1962), p. 52. The original appeared in Ladies' Home Journal, November, 1912. Efficiency had a wide audience.
15. To take one example, President Eliot of Harvard in 1890 stated that, "the plain fact is that not one-tenth of the schools called high in Massachusetts habitually maintain a course of study which enables the pupil to prepare himself for admission to Harvard College . . ." and went on to say that things were even worse outside Massachusetts. Cited in D. B. Tyack, Turning Points in American Educational History (Waltham: Blaisdell, 1967), p. 374. Also useful are J. M. Cronin, The Control of Urban Schools: Perspectives on the Power of Educational Reformers (New York: Free Press, 1973); and S. B. Hays, "The Politics of Reform in Municipal Government in the Progressive Era," Pacific Northwest Quarterly, 55(October 1964), pp. 157-169.
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19. See, for example, J. H. Spring, Education and the Rise of the Corporate State (Boston: Beacon Press, 1972); J. Weinstein, The Corporate Ideal in the Liberal State 1900-1918 (Boston: Beacon Press, 1968); C. J. Karier et al., Roots of Crisis: American Education in the Twentieth Century (Chicago: Rand and McNally, 1973).
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25. For a useful summary of the rise of vocational guidance, see the chapter, "Vocational Guidance, the Junior High School and Adolescence" in Spring, Education and the Rise of the Corporate State, pp. 91-107.
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